

1.0 Introduction

EFSEC has established general and specific guidelines in WAC 463-42 for preparing ASC pursuant to RCW 80.50. This chapter of the PSS provides BP and its consultants with guidelines and, where appropriate, more detailed criteria regarding responses to the information requirements. BP is asked to provide the information requested in each WAC 463-42 section and subsections. For some WAC sections and subsections, the text of the code is detailed enough that additional guidelines and criteria are not needed.

The guidelines and criteria in this chapter are presented within the general recommended format of the ASC. By preparing the ASC within this recommended format and meeting the guidelines and criteria presented in this chapter, BP can provide EFSEC with (1) a clear understanding of the proposed project, and (2) BP's assessment of the project's potential impacts. This approach will assist in streamlining the review of the ASC and preparation of the EIS that EFSEC will develop. This EIS may be prepared jointly with the Bonneville Power Administration as a combined NEPA/SEPA EIS. Also, the U.S. Army Corps of Engineers' requirements for a Section 404 permit to fill wetlands would require compliance with NEPA. Thus, either BPA or Corps requirements will trigger the need to prepare an EIS that meets NEPA.

The ASC format now preferred by EFSEC is different from that of previous ASCs and consists of a cover letter and accompanying material, which include:

- ASC Part I — This should consist of specific but brief responses to all elements identified in WAC 463-42. Cross-references to the environmental report and technical appendices should be provided where appropriate.
- ASC Part II — This should consist of an environmental report that summarizes the information presented in the technical appendices and follows the general format of an EIS.
- ASC Part III — This should consist of technical appendices that provide additional information in response to WAC 463-42.

The guidelines and criteria in this chapter identify the recommended information to be included in the ASC, expanding upon the requirements of WAC 463-42. They also identify applicable NEPA requirements and other relevant regulatory requirements. In some sections of these guidelines and criteria, one or more of these three categories (WAC 463-42, NEPA, or other) may not have requirements applicable to the BP Cherry Point Cogeneration Project. If NEPA requirements or others are not identified, no additional information is required.

Although BP may provide additional information, the Council recommends that BP provide the information requested in these guidelines and criteria to present a complete and responsive ASC.

The remainder of this chapter of the Potential Site Study consists of four sections:

- ASC Cover Letter Guidelines and Criteria
- ASC Part I Guidelines and Criteria for responding to WAC 463-42
- ASC Part II Guidelines and Criteria for the Environmental Report
- ASC Part III Guidelines and Criteria for the Technical Appendices

ASC Part I has been organized to respond specifically to every element of WAC 463-42 in the order presented in the code. ASC Part II has been organized by environmental element similar to an EIS.

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2.0 ASC Cover Letter Guidelines and Criteria

This section describes the recommended guidelines and criteria for preparation of the ASC cover letter. It also lists the attachments that should accompany the cover letter. The section is divided into two parts. The first part identifies by title the regulatory requirements related to the requested information. The second part lists the criteria for the cover letter and attachments. Together, the cover letter and attachments comprise a complete ASC submittal.

2.1 Regulatory Requirements

Certain regulatory requirements should be addressed in the cover letter. These requirements are listed below.

WAC Requirements

WAC 463-42-015 General – Description of applicant.

WAC 463-42-025 General – Designation of agent.

WAC 463-42-035 General – Fee.

WAC 463-42-055 General – Form and number of copies.

WAC 463-42-065 General – Full disclosure by applicants.

WAC 463-42-105 General – Graphic material.

WAC 463-42-115 General – Specific contents and applicability.

WAC 463-42-362 Built environment – Land and shoreline use.

WAC 463-42-690 Amendments to applications, additional studies, procedure.

NEPA Requirement

Not applicable.

Other Requirements

Not applicable.

2.2 Guidelines and Criteria

Based on the regulatory requirements listed above, the following criteria would apply.

Cover Letter

- A. Provide a description of BP's organization and affiliations for this proposal in the ASC cover letter.
- B. Provide the name, address, telephone number, fax number, and e-mail address of the individual with authority to speak for BP. This should be the individual who is to receive communications for the project and who will represent BP at Council proceedings for the BP Cherry Point Cogeneration Project.

- C. Provide a statement that BP has, to the best of its knowledge, included in the ASC all information known at the time of the ASC submittal that has a bearing on site certification.
- D. Provide a request for a waiver, including justification, from specific sections of WAC 463-42 that are not applicable to the BP Cherry Point Cogeneration Project.
- E. Provide a statement certifying that BP has reviewed all EFSEC application requirements, that qualified professional personnel have prepared the data, and that the application is substantially complete.
- F. Provide a statement in the cover letter that certifies the ASC is complete and reflects the best available current information and intentions of BP.

Attachments

- A. Provide a copy of each adopted land use plan and zoning ordinance for land within a 25-mile radius of the generation plant site (U.S. only). Only one copy of each plan or ordinance is required.
- B. Provide one copy of each cultural resources technical report, as appropriate.
- C. Provide one copy of the BP Cherry Point Refinery Emergency Response Plan.
- D. Provide a cashier's check payable to the state treasurer for the amount of \$25,000 (see WAC 463-58-030). As noted in WAC 463-58-030, this deposit fee will be applied toward the costs of processing the application.
- E. Provide a camera-ready copy of the entire ASC, including illustrative graphics and appendices.
- F. Provide 100 copies of the ASC.
- G. Provide a digital copy of the text of the ASC (including appendices) in Microsoft Word 97 format and a digital copy in Adobe Acrobat ".pdf" format on CD-ROM.

3.0 ASC Part I Guidelines and Criteria for Responding to WAC 463-42

Part I of the ACS should document that each section of EFSEC's regulations (WAC 463-42) has been addressed in BP's ASC. Each section of the code should be listed in numerical order, although code numbers reserved for future use need not be listed. The text of each section of the code should be reproduced in full. Beneath each section of the code, BP should provide a summary response and a reference to where the information is located in the ASC. In this way, the reader may quickly ascertain whether or not the information is presented in the ASC and where the information can be found. In sum, the information contained in Part I of the ASC should help the reader to determine if the ACS is complete per WAC 463-42.

WAC 463-42-010 Purpose and scope. *This chapter sets forth guidelines for preparation of applications for energy facility site certification pursuant to chapter 80.50 RCW.*

The application shall provide the council with information regarding the applicant, the proposed project design and features, the natural environment, the built environment, and plans for project termination and site restoration. This information shall be in such detail as determined by the council to enable the council to go forward with its application review.

By complying with the other guidelines and criteria presented in this chapter of the PSS, BP will be in compliance with WAC 463-42-010. No specific response is needed.

WAC 463-42-012 General – Organization – Index. *Except as may be otherwise approved by the council and except as otherwise provided below with respect to applications covering nuclear power plants, the contents of the application shall be organized in the same order as these guidelines.*

No response is necessary. The Council recommends that BP organize its application in the manner presented in this PSS.

(1) To aid in the council's review under SEPA and chapter 463-47 WAC, WAC 463-42-302 through 463-42-382 are similar to the elements required in an environmental impact statement.

No response is necessary.

(2) In the case of an application covering a nuclear power plant, the environmental report prepared for the nuclear regulatory commission may be substituted for the comparable sections of the site certification application, provided that the environmental report is supplemented as necessary to comply with this chapter and that an index is included listing these guidelines in order and identifying where each applicable guideline is addressed.

Not applicable to the BP Cherry Point Cogeneration Project.

WAC 463-42-015 General – Description of applicant. *The applicant shall provide an appropriate description of the applicant's organization and affiliations for this proposal.*

A description of BP's organization and affiliations for this proposal should be included in the ASC cover letter.

WAC 463-42-025 General – Designation of agent. *The applicant shall designate an agent to receive communications on behalf of the applicant.*

The name, address, telephone number, fax number, and e-mail address of the individual with authority to speak for BP should be provided in the ASC cover letter.

WAC 463-42-035 General – Fee. *The statutory fee shall accompany an application and shall be a condition precedent to any action by the council. Payment shall be by a cashier's check payable to the state treasurer.*

As an attachment to the cover letter, BP should provide a cashier's check payable to the state treasurer for the amount of \$25,000. As noted in WAC 463-58-030, this deposit fee will be applied toward the costs of processing the application.

WAC 463-42-045 General – Where filed. *Applications for site certification shall be filed with the council at the council office.*

No response is necessary.

WAC 463-42-055 General – Form and number of copies.

(1) Applications shall be on 8-1/2 by 11" sheets, in loose-leaf form with a hard cover binder. Applicants shall supply thirty-five copies of the application to the council, two copies to each county, two copies to each city, and one copy to each port district in which the proposed project would be located. In addition, one copy shall be supplied to each intervenor on admission to the proceedings. Information later submitted shall be by page-for-page substitutions suitable for insertion in the application binder, bearing the date of the submission.

No response is necessary, though additional explanation follows.

Where appropriate for clarity in the ASC, BP should use 11-by-17-inch pages for graphics (such as route maps).

BP should provide a cover letter, a loose-leaf camera-ready copy of the entire ASC, and 100 copies of the ASC to the Council.

(2) An applicant shall also provide the council copies of its application in a digital format for use in personal computers. Digital format shall be determined by the council in consultation with its consultants and the applicant.

No response is necessary, though additional explanation follows.

BP should provide a digital copy of the ASC text in Microsoft Word 97 format and a digital copy of the entire document in Adobe Acrobat ".pdf" format. These copies should be provided on a CD-ROM at the time the ASC is submitted.

WAC 463-42-065 General – Full disclosure by applicants. *It is recognized that these guidelines can only be comprehensive in a relative sense. Therefore, and in addition to the other guidelines contained herein, the council adopts the basic guideline that an applicant for site certification must identify in the application all information known to the applicant which has a bearing on site certification.*

BP should state in the cover letter that the company has, to the best of its knowledge, included in the ASC all information that has a bearing on site certification known to the company at the time of the ASC's submittal.

WAC 463-42-075 General - Assurances. *The application shall set forth insurance, bonding or other arrangements proposed in order to mitigate for damage or loss to the physical or human environment caused by project construction, operation, abandonment, termination, or when operations cease at the completion of a project's life.*

BP should summarize the information presented in ASC Part III Appendix A, Assurances, and reference this appendix.

WAC 463-42-085 General – Mitigation measures. *The application shall describe the means to be utilized to minimize or mitigate possible adverse impacts on the physical or human environments.*

BP should present a summary of the mitigation measures described in ASC Part III Appendix O, Mitigation Measures, and reference this appendix.

WAC 463-42-095 General – Sources of information. *The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.*

BP should provide an alphabetical list of references as presented in ASC Part III Appendix B, General Sources of Information, including information on author, date of publication, publisher, and other information required to independently obtain the reference material. This appendix should be referenced in this discussion.

WAC 463-42-105 General – Graphic material. *It is the intent that material submitted pursuant to these guidelines shall be descriptive and shall include illustrative graphics in addition to narration. This requirement shall particularly apply to subject matter that deals with systems, processes, and spatial relationships. The material so submitted shall be prepared in a professional manner and in such form and scale as to be understood by those who may review it.*

No response is necessary. By complying with the other guidelines and criteria presented in this chapter of the PSS, BP will be in compliance with WAC 463-42-105.

WAC 463-42-115 General – Specific contents and applicability. *It is recognized that not all sections of these guidelines apply equally to all proposed energy facilities. If the applicant deems a particular section to be totally inapplicable the applicant must justify such conclusion in response to said section. The applicant must address all sections of this chapter and must substantially comply with each section, show it does not apply or secure a waiver from the council. Information submitted by the applicant shall be accompanied by a certification by applicant that all EFSEC application requirements have been reviewed, the data have been prepared by qualified professional personnel, and the application is substantially complete.*

In the cover letter, BP should provide a request for a waiver, including justification, from specific sections of WAC 463-42 that are not applicable to the BP Cherry Point Cogeneration Project.

In the cover letter, BP should provide a statement certifying that BP has reviewed all EFSEC application requirements, that the data have been prepared by qualified professional personnel (e.g., engineering design performed by professional engineers licensed to practice in the state of Washington), and that the application is substantially complete.

WAC 463-42-125 Proposal – Site description. *The application shall contain a description of the proposed site indicating its location, prominent geographic features, typical geological and climatological characteristics, and other information necessary to provide a general understanding of all sites involved, including county or regional land use plans and zoning ordinances.*

A brief description of the proposed location of project facilities, including the generation plant, the natural gas pipeline connections and associated facilities, the water supply facilities, and the substation and electrical transmission lines, should be provided. This should include a brief description of key geographic features, climatological characteristics, surrounding land use, and designations of the project facility locations in applicable land use plans and zoning ordinances. A more detailed description of the various elements should be referenced here and provided in Sections 2.1, 3.1, 3.2, and 3.8 of the environmental report and appropriate technical appendices (Appendix D, Project Description, Appendix E, Air Quality, and Appendix G, Earth).

WAC 463-42-135 Proposal - Legal descriptions and ownership interests.

(1) Principal facility: The application shall contain a legal description of the site to be certified and shall identify the applicants and all nonprivate ownership interests in such land.

(2) Ancillary facilities: For those facilities described in RCW 80.50.020 (6) and (7) the application shall contain the legal metes and bounds description of the preferred centerline of the corridor necessary to construct and operate the facility contained therein, the width of the corridor, or variations in width between survey stations if appropriate, and shall identify the applicant's and others ownership interests in lands over which the preferred centerline is described and of those lands lying equidistant for 1/4 mile either side of such center line.

In response to Sections 1 and 2 above, BP should provide a general description of land ownership at and in the vicinity of all elements of the project. This description should reference ASC Part III Appendix C, Legal Descriptions and Ownership, where detailed ownership information should be presented.

WAC 463-42-145 Proposal – Construction on site. *The applicant shall describe the characteristics of the construction to occur at the proposed site including the type, size, and cost of the facility; description of major components and such information as will acquaint the council with the significant features of the proposed project.*

BP should briefly describe the plant layout, including transmission line connections and natural gas pipeline connections, and provide plan view and project elevation drawings. More detailed descriptions should be referenced here and provided in Section 2.1 of the environmental report and ASC Part III Appendix D, Project Description.

WAC 463-42-155 Proposal – Energy transmission systems. *The applicant shall discuss the criteria utilized as well as describe the routing, the conceptual design, and the construction*

schedule for all facilities identified in RCW 80.50.020 (6) and (7) which are proposed to be constructed.

BP should provide a brief description and maps that show the construction and operational corridors of transmission lines associated with the project (including those lines serving the refinery). Include the locations of access roads, laydown areas, and culverts that may be required. Provide graphics that illustrate the conceptual design and dimensions of the transmission line towers. More detailed information should be referenced here, summarized in Section 2.1 of the environmental report, and provided in ASC Part III Appendix D, Project Description.

WAC 463-42-165 Proposal – Water supply system. *The applicant shall describe the location and type of water intakes and associated facilities.*

BP should briefly identify and describe the location, source, and conveyance system for plant and potable water from the source to the point of use in the cogeneration plant. More detailed information should be referenced here, summarized in Section 2.1 of the environmental report, and provided in ASC Part III Appendix D, Project Description, and Appendix F, Water.

WAC 463-42-175 Proposal – System of heat dissipation. *The applicant shall describe both the proposed and alternative systems for heat dissipation from the proposed facilities.*

BP should briefly describe the proposed heat dissipation system for the BP Cherry Point Cogeneration Project. A more detailed description of the system should be referenced here, and summarized in Section 2.1 of the environmental report, and provided in ASC Part III Appendix D, Project Description.

WAC 463-42-185 Proposal – Characteristics of aquatic discharge systems. *Where discharges into a watercourse are involved, the applicant shall identify outfall configurations and show proposed locations.*

Since plant wastewater (i.e., blowdown) may be discharged to the refinery's wastewater treatment system, BP should describe the refinery's NPDES discharge to Puget Sound waters. Briefly describe the dilution system currently used at the pier and any improvements that may be needed. Also, stormwater may be discharged to wetlands north of Grandview Road. A brief description of the stormwater discharge system should be provided here. Additional information should be summarized in Sections 2.1 and 3.3 of the environmental report and provided in ASC Part III Appendix D, Project Description, and Appendix F, Water.

WAC 463-42-195 Proposal – Wastewater treatment. *The applicant shall describe each wastewater source associated with the facility and for each source, the applicability of all known, available, and reasonable methods of wastewater control and treatment to ensure it meets current waste discharge and water quality regulations. Where wastewater control involves collection and retention for recycling and/or resource recovery, the applicant shall show in detail the methods selected, including at least the following information: Waste source(s), average and maximum daily amounts and composition of wastes, storage capacity and duration, and any bypass or overflow facilities to the wastewater treatment system(s) or the receiving waters. Where wastewaters are discharged into receiving waters, the applicant shall provide a detailed description of the proposed treatment system(s), including appropriate flow diagrams and tables showing the sources of all tributary waste streams, their average and maximum daily amounts and composition, individual treatment units and*

their design criteria, major piping (including all bypasses), and average and maximum daily amounts and composition of effluent(s).

BP should provide a summary description of wastewater resulting from the project, including steam circuit blowdown, stormwater treatment, and sanitary sewage streams and their subsequent treatment and discharge. More detailed information should be provided in Sections 2.1 and 3.3 of the environmental report and ASC Part III Appendix D, Project Description, and Appendix F, Water.

WAC 463-42-205 Proposal – Spillage prevention and control. *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

BP should provide a summary description of the project's proposed Spill Prevention and Control Plan, showing control measures and equipment shared with the refinery, where applicable. The detailed discussion, which is to cover each facility and project stage (construction, operation, and maintenance), should be presented in Section 3.15 of the environmental report and ASC Part III Appendix J, Emergency and Security Plans.

WAC 463-42-215 Proposal – Surface-water runoff. *The applicant shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards.*

BP should provide a summary description of stormwater collection streams and their subsequent treatment and discharge. More detailed information should be provided in Section 3.3 of the environmental report and in ASC Part III Appendix D, Project Description, and Appendix F, Water.

WAC 463-42-225 Proposal – Emission control. *The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation. In the case of fossil fuel power plants and petroleum refineries, the applicant should deal with products containing sulphur, NO_x, volatile organics, CO, CO₂, aldehydes, particulate, and any other emissions subject to regulation by local, state, or federal agencies. In the case of a nuclear-fueled plant, the applicant should deal with optional plant designs as these may relate to gaseous emissions.*

BP should briefly describe air quality emission controls to be included in the project. A detailed response should be provided in Section 3.2 of the environmental report and in ASC Part III Appendix E, Air Quality.

WAC 463-42-235 Proposal – Construction and operation activities. *The applicant shall: provide the proposed construction schedule, identify the major milestones, and describe activity levels versus time in terms of craft and noncraft employment; and describe the proposed operational employment levels.*

At a minimum, BP should include anticipated construction schedules and major milestones for the plant and associated facilities. In addition, the plant schedule should describe the anticipated plant operation activities. More detailed information should be provided in Section 2.1 of the environmental report and in ASC Part III Appendix D, Project Description.

Regarding the construction workforce, BP should briefly describe the average composition of the labor force by trade, if possible. The proposed operational employment levels should also be briefly described. More detailed information should be contained in Section 3.11 of the environmental report and in ASC Part III Appendix L, Population, Housing, and Economics.

WAC 463-42-245 Proposal - Construction management. *The applicant shall describe the organizational structure including the management of project quality and environmental functions.*

BP should provide an overview of the proposed construction management plan for the proposed cogeneration plant. More detailed information should be included in Section 2.1 of the environmental report and in ASC Part III Appendix D, Project Description.

WAC 463-42-255 Proposal – Construction methodology. *The applicant shall describe in detail the construction procedures, including major equipment, proposed for any construction activity within watercourses, wetlands and other sensitive areas.*

BP should briefly describe existing site conditions including current use, general topography, slope, soils, watercourses, wetlands, or other sensitive areas where construction would occur.

Briefly describe the general and specialized construction approaches to be used at the project site, including the transmission lines and natural gas pipeline connections, and water pipeline corridor from the refinery.

More detailed descriptions of the construction methods should be summarized in Section 2.1 the environmental report and provided in ASC Part III Appendix D, Project Description.

WAC 463-42-265 Proposal – Protection from natural hazards. *The applicant shall describe the means employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.*

BP should present a summary of the natural hazard protection information. Additional information should be summarized in Sections 3.1 and 3.12 of the environmental report and provided in ASC Part III Appendix G, Earth, and Appendix J, Emergency and Security Plans.

WAC 463-42-275 Proposal – Security concerns. *The applicant shall describe the means employed for protection of the facility from sabotage, vandalism and other security threats.*

BP should briefly describe the features of the project (construction and operation) designed to provide security including lighting, fencing, alarms, security personnel and patrols, cameras, and other planned features. More detailed information should be summarized in Sections 3.10 and 3.12 of the environmental report and provided in ASC Part III Appendix J, Emergency and Security Plans.

WAC 463-42-285 Proposal - Study schedules. *The applicant shall furnish a brief description of all present or projected schedules for additional environmental studies. The studies descriptions should outline their scope and indicate projected completion dates.*

BP should briefly describe the schedule and scope for any other environmental studies to be completed in addition to those studies submitted as part of the ASC. A more detailed schedule should be provided in Appendix N, Study Schedules.

WAC 463-42-295 Proposal - Potential for future activities at site. *The applicant shall describe the potential for any future additions, expansions, or further activities which might be undertaken by the applicant on or contiguous to the proposed site.*

BP should discuss its plans for any potential expansions, additions, or changes on the property owned by BP and on land adjacent to this property. If needed, more detailed information should be contained in Section 2.1 of the environmental report.

WAC 463-42-302 Natural environment - Earth. *The applicant shall provide detailed descriptions of the existing environment, project impacts, and mitigation measures for the following:*

- (1) Geology - The applicant shall include the results of a comprehensive geologic survey showing conditions at the site, the nature of foundation materials, and potential seismic activities.*
- (2) Soils - The applicant shall describe all procedures to be utilized to minimize erosion and other adverse consequences during the removal of vegetation, excavation of borrow pits, foundations and trenches, disposal of surplus materials, and construction of earth fills. The location of such activities shall be described and the quantities of material shall be indicated.*
- (3) Topography - The applicant shall include contour maps showing the original topography and any changes likely to occur as a result of energy facility construction and related activities. Contour maps showing proposed shoreline or channel changes shall also be furnished.*
- (4) Unique physical features - The applicant shall list any unusual or unique geologic or physical features in the project area or areas potentially affected by the project.*
- (5) Erosion/enlargement of land area (accretion) - The applicant shall identify any potential for erosion, deposition, or change of any land surface, shoreline, beach, or submarine area due to construction activities, placement of permanent or temporary structures, or changes in drainage resulting from construction or placement of facilities associated with construction or operation of the proposed energy project.*

To respond to Sections 1-5 above, BP should briefly describe the existing geology, soils, and other geographic features on the site. A more detailed description of the earth environment should be summarized in Section 3.1 of the environmental report and described in ASC Part III Appendix G, Earth.

WAC 463-42-312 Natural environment - Air. *The applicant shall provide detailed descriptions of the affected environment, project impacts, and mitigation measures for the following:*

- (1) Air quality - The applicant shall identify all pertinent air pollution control standards. The application shall contain adequate data showing air quality and meteorological conditions at the site. Meteorological data shall include, at least, adequate information about wind direction patterns, air stability, wind velocity patterns, precipitation, humidity, and temperature. The applicant shall describe the means to be utilized to assure compliance with applicable local, state, and federal air quality and emission standards.*

(2) Odor - The applicant shall describe for the area affected, all odors caused by construction or operation of the facility, and shall describe how these are to be minimized or eliminated.

(3) Climate - The applicant shall describe the extent to which facility operations may cause visible plumes, fogging, misting, icing, or impairment of visibility, and changes in ambient levels caused by all emitted pollutants.

(4) Dust - The applicant shall describe for any area affected, all dust sources created by construction or operation of the facility, and shall describe how these are to be minimized or eliminated.

To respond to Sections 1-4 above, BP should briefly describe the air quality environment and potential impacts as a result of the project. A detailed description of existing air quality and potential impacts of the facility should be summarized in Section 3.2 of the environmental report and provided in ASC Part III Appendix E, Air Quality.

WAC 463-42-322 Natural environment - Water. *The applicant shall provide detailed descriptions of the affected natural water environment, project impact and mitigation measures and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet state water quality standards. The applicant shall indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use and describe all existing water rights, withdrawal authorizations, or restrictions which relate to the proposed source.*

(1) Surface water movement/quality/quantity - The application shall set forth all background water quality data pertinent to the site, and hydrographic study data and analysis of the receiving waters within one-half mile of any proposed discharge location with regard to: Bottom configuration; minimum, average, and maximum water depths and velocities; water temperature and salinity profiles; anticipated effluent distribution and dilution, and plume characteristics under all discharge conditions; and other relevant characteristics which could influence the impact of any wastes discharged thereto.

(2) Runoff/absorption - The applicant shall describe how surface water runoff and erosion are to be controlled during construction and operation, how runoff can be reintroduced to the ground for retention to the ground water supply, and to assure compliance with state water quality standards.

(3) Floods - The applicant shall describe potential for flooding, identify the five, fifty, one hundred, and five hundred year flood boundaries, and all protective measures to prevent possible flood damage to the site and facility.

(4) Ground water movement/quantity/quality - The applicant shall include the results of a comprehensive hydrologic survey, describe the ground water conditions on and near the site and any changes in ground water movement, quantity, or quality which might result from project construction or operation.

(5) Public water supplies - The applicant shall provide a detailed description of any public water supplies, which may be used or affected by the project during construction or operation of the facility.

To respond to Sections 1-5 above, BP should briefly describe the affected water environment and potential impacts of the project. A detailed description of existing

water quality and potential impacts of the facility should be summarized in Section 3.3 the environmental report and provided in ASC Part III Appendix F, Water.

WAC 463-42-332 Natural environment - Plants and animals.

(1) Habitat for and number or diversity of species of plants, fish, or other wildlife - The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.

(2) Unique species - Any endangered species or noteworthy species or habitat shall receive special attention.

(3) Fish or wildlife migration routes - The applicant shall identify all fish or wildlife migration routes which may be affected by the energy facility or by any discharge to the environment.

To respond to Sections 1-3 above, BP should briefly describe plants and animals in the project vicinity and potential impacts associated with the project. A detailed description of plant and animal habitat and potential impacts of the facility should be summarized in Sections 3.4, 3.5, and 3.6 of the environmental report and provided in ASC Part III Appendix H, Plants and Animals.

WAC 463-42-342 Natural environment - Energy and natural resources.

(1) Amount required/rate of use/efficiency - The applicant shall describe the energy and natural resource consumption during both construction and operation of the proposed facilities as rate of use and efficiency that can be achieved during construction and operation.

(2) Source/availability - The applicant shall describe the sources of supply, locations of use, types, amounts, and availability of energy or resources to be used or consumed during construction and operation of the facility.

(3) Nonrenewable resources - The applicant shall describe all nonrenewable resources that will be used, made inaccessible or unusable by construction and operation of the facility.

(4) Conservation and renewable resources - The applicant shall describe conservation measures and/or renewable resources which will or could be used during construction and operation of the facility.

To respond to Sections 1-4 above, BP should provide a brief discussion of energy and natural resources to be used in the project. A detailed discussion of energy use and conservation should be included in Section 3.7 of the environmental report.

(5) Scenic resources - The applicant shall describe any scenic resources which may be affected by the facility or discharges from the facility.

Scenic resources in Section 5 above should be summarized in Section 3.10 of the environmental report.

WAC 463-42-352 Built environment - Environmental health.

(1) Noise - The applicant shall describe the impact of noise from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.

BP should provide a brief discussion of the noise environment and potential impacts associated with the project. A detailed discussion of noise impacts should be included in ASC Part III Appendix K, Noise, and summarized in Section 3.8 of the environmental report.

(2) Risk of fire or explosion - The applicant shall describe any potential for fire or explosion during construction, operation, standby or nonuse, dismantling, or restoration of the facility and what measures will be made to mitigate any risk of fire or explosion.

(3) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials - The applicant shall describe any potential for release of toxic or hazardous materials to the environment and shall identify plans for complying with the federal Resource Conservation and Recovery Act and the state Dangerous waste regulations (chapter 173-303 WAC). The applicant shall describe the treatment or disposition of all solid or semisolid construction and operation wastes including spent fuel, ash, sludge, and bottoms, and show compliance with applicable state and local solid waste regulations.

(4) Safety standards compliance - The applicant shall identify all federal, state, and local health and safety standards which would normally be applicable to the construction and operation of a project of this nature and shall describe methods of compliance therewith.

To respond to Sections 2-4 above, BP should provide a brief discussion of potential impacts on environmental and human health. A detailed discussion of emergency procedures and safety issues should be addressed in ASC Part III Appendix J, Emergency and Security Plans, and summarized in Section 3.15 of the environmental report.

(5) Radiation levels - For facilities which propose to release any radioactive materials, the applicant shall set forth information relating to radioactivity. Such information shall include background radiation levels of appropriate receptor media pertinent to the site. The applicant shall also describe the proposed radioactive waste treatment process, the anticipated release of radionuclides, their expected distribution and retention in the environment, the pathways which may become sources of radiation exposure, and projected resulting radiation doses to human populations. Other sources of radiation, which may be associated with the project shall be described in all applications.

No response is required for Section 5 above.

WAC 463-42-362 Built environment - Land and shoreline use.

(1) The relationship to existing land use plans and to estimated population - As part of the application, the applicant shall furnish copies of adopted land use plans and zoning ordinances, including the latest land use regulation and a survey of present land uses within the following distances of the immediate site area:

(a) In the case of thermal power plants, twenty-five miles radius;

As an attachment to the cover letter, BP should provide a copy of each adopted land use plan and zoning ordinance for land within a 25-mile radius of the generation plant

site per Section 2.0 of this chapter (above). This information should be discussed in Section 3.9 of the environmental report.

(b) In the case of petroleum refineries ten miles radius;

Not applicable to the BP Cherry Point Cogeneration Project.

(c) In the case of petroleum or LNG storage areas or underground natural gas storage, ten miles radius from center of storage area or well heads;

Not applicable to the BP Cherry Point Cogeneration Project.

(d) In the case of pipe lines and electrical transmission routes, one mile either side of center line.

See response for Section 1a above. This information should be discussed in Section 3.9 of the environmental report.

(2) Housing - The applicant shall describe potential impact on housing needs, costs, or availability due to influx of workers for construction and/or operation of the facility.

BP should provide a brief discussion of potential impacts of the project on housing in the project vicinity. A more detailed description should be provided in ASC Part III Appendix L, Population, Housing, and Economics, and summarized in Section 3.11 of the environmental report.

(3) Light and glare - The applicant shall describe the impact of lights and glare from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.

(4) Aesthetics - The applicant shall describe the aesthetic impact of the proposed energy facility and associated facilities and any alteration of surrounding terrain. The presentation will show the location and design of the facilities relative to the physical features of the site in a way that will show how the installation will appear relative to its surroundings. The applicant shall describe the procedures to be utilized to restore or enhance the landscape disturbed during construction (to include temporary roads).

To respond to Sections 3 and 4 above, BP should summarize existing conditions and potential impacts from light and glare and other aesthetic issues. More detailed information should be contained in Section 3.10 of the environmental report.

(5) Recreation - The applicant shall list all recreational sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.

BP should briefly describe existing recreational resources and potential impacts in the project vicinity. More detailed information should be contained in Section 3.12 of the environmental report.

(6) Historic and cultural preservation - The applicant shall list all historical and archaeological sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.

BP should provide a brief discussion of potential impacts of the project on historic and cultural resources in the project vicinity. A more detailed description should be provided in Section 3.13 of the environmental report.

(7) Agricultural crops/animals - The applicant shall identify all agricultural crops and animals which could be affected by construction and/or operation of the facility and any operations, discharges, or wastes which could impact the adjoining agricultural community.

BP should provide a brief discussion of existing conditions and potential impacts on agricultural crops and livestock within the project vicinity. Potential impacts should be addressed in detail in ASC Part III Appendix H, Plants and Animals, and summarized in Section 3.4 of the environmental report.

WAC 463-42-372 Built environment - Transportation.

(1) Transportation systems - The applicant shall identify all permanent transportation facilities impacted by the construction and operation of the energy facilities, the nature of the impacts and the methods to mitigate impacts. Such impact identification, description, and mitigation shall, at least, take into account:

- (a) Expected traffic volumes during construction, based on where the work force is expected to reside;*
- (b) Access routes for moving heavy loads, construction materials, or equipment;*
- (c) Expected traffic volumes during normal operation of the facility;*
- (d) For transmission facilities, anticipated maintenance access; and*
- (e) Consistency with local comprehensive transportation plans.*

(2) Vehicular traffic - The applicant shall describe existing roads, estimate volume, types, and routes of vehicular traffic which will arise from construction and operation of the facility. The applicant shall indicate the applicable standards to be utilized in improving existing roads and in constructing new permanent or temporary roads or access, and shall indicate the final disposition of new roads or access and identify who will maintain them.

(3) Waterborne, rail, and air traffic - The applicant shall describe existing railroads and other transportation facilities and indicate what additional access, if any, will be needed during planned construction and operation. The applicant shall indicate the applicable standards to be utilized in improving existing transportation facilities and in constructing new permanent or temporary access facilities, and shall indicate the final disposition of new access facilities and identify who will maintain them.

(4) Parking - The applicant shall identify existing and any additional parking areas or facilities which will be needed during construction and operation of the energy facility, and plans for maintenance and runoff control from the parking areas or facilities.

(5) Movement/circulation of people or goods - The applicant shall describe any change to the current movement or circulation of people or goods caused by construction or operation of the facility. The applicant shall indicate consideration of multipurpose utilization of rights of way and describe the measures to be employed to utilize, restore, or rehabilitate disturbed areas. The applicant shall describe the means proposed to ensure safe utilization of those areas under applicant's control on or in which public access will be granted during project construction, operation, abandonment, termination, or when operations cease.

(6) Traffic hazards - The applicant shall identify all hazards to traffic caused by construction or operation of the facility. Except where security restrictions are imposed by the federal government the applicant shall indicate the manner in which fuels and waste products are to

be transported to and from the facility, including a designation of the specific routes to be utilized.

To respond to Sections 1-6, BP should provide a brief discussion of transportation impacts associated with the project. A detailed discussion of existing transportation conditions and potential project-related impacts should be provided in ASC Part III Appendix I, Transportation, and summarized in Section 3.14 of the environmental report.

WAC 463-42-382 Built environment - Public services and utilities. *The applicant shall describe the impacts, relationships, and plans for utilizing or mitigating impacts caused by construction or operation of the facility to the following:*

- (1) Fire;*
- (2) Police;*
- (3) Schools;*
- (4) Parks or other recreational facilities;*
- (5) Maintenance;*
- (6) Communications;*
- (7) Water/storm water;*
- (8) Sewer/solid waste;*
- (9) Other governmental services or utilities.*

To respond to Sections 1-9 above, BP should briefly describe the status of existing public services and utilities in the project area and the potential impacts associated with the facility (e.g., possible use of the Cascade natural gas pipeline that provides fuel to the Puget Sound Energy Whitehorn plant). More detailed information should be addressed in Section 3.12 of the environmental report.

WAC 463-42-385 PSD application. *The applicant shall include a completed prevention of significant deterioration permit application.*

BP should reference Appendix E, Air Quality, which should include the PSD application.

WAC 463-42-435 NPDES application. *The applicant shall include a completed National Pollutant Discharge Elimination System permit application.*

BP should reference Appendix F, Water, which should include the NPDES application.

WAC 463-42-525 Emergency plans. *The applicant shall describe emergency plans which will be required to assure the public safety and environmental protection on and off the site in the event of a natural disaster or other major incident relating to or affecting the project and further, will identify the specific responsibilities which will be assumed by the applicant.*

BP should provide a brief discussion of emergency plans associated with the project. A detailed discussion of emergency plans should be included in ASC Part III Appendix J, Emergency and Security Plans, and summarized in Section 3.15 of the environmental report including emergency notification requirements.

WAC 463-42-535 Socioeconomic impact. *The applicant shall submit a detailed socioeconomic impact study which identifies primary and secondary and positive as well as negative impacts on the socioeconomic environment with particular attention and analysis of*

impact on population, work forces, property values, housing, traffic, health and safety facilities and services, education facilities and services, and local economy.

BP should provide a brief discussion of socioeconomic conditions associated with the project and the potential impacts. Potential socioeconomic impacts should be discussed in detail in ASC Part III Appendix L, Population, Housing, and Economics, and summarized in Section 3.11 of the environmental report.

WAC 463-42-625 Criteria, standards, and factors utilized to develop transmission route. *The applicant shall identify the federal, state, and industry criteria used in the energy transmission route selection and shall identify the criteria used and the construction factors considered in developing the proposed design and shall indicate how such criteria are met.*

BP should briefly describe the factors used in developing the transmission lines to the interconnection point with the BPA 230-kV transmission line. This information should be presented in more detail in Section 2.1 of the environmental report.

WAC 463-42-645 Analysis of alternatives. *The applicant shall provide an analysis of alternatives for site, route, and other major elements of the proposal.*

BP should briefly describe the onsite alternatives considered for the cogeneration plant, interconnecting transmission lines, and pipeline connection routes as well as other major elements of the project. This information should be presented in detail in Section 2.2 of the environmental report.

WAC 463-42-655 Initial site restoration plan. *The applicant or certificate holder shall in the application, or within twelve months after the effective date of this section, whichever occurs later, provide an initial plan for site restoration at the conclusion of the plant's operating life. The plan shall parallel a decommissioning plan, if such a plan is prepared for the project. The initial site restoration plan shall be prepared in sufficient detail to identify, evaluate, and resolve all major environmental, and public health and safety issues presently anticipated. It shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and shall address provisions for funding or bonding arrangements to meet the site restoration or management costs. The plan shall be prepared in detail commensurate with the time until site restoration is to begin. The scope of proposed monitoring shall be addressed in the plan.*

BP should briefly present the key features of the initial site restoration plan. A more detailed description should be provided in ASC Part III Appendix M, Initial Site Restoration Plan.

WAC 463-42-665 Detailed site restoration plan terminated projects. *When a project is terminated, a detailed site restoration plan shall be submitted within twelve months after termination or within twelve months after the effective date of this section, whichever occurs later. An extension of time may be granted for good cause shown. The site restoration plan shall address the elements required to be addressed in WAC 463-42-655, in detail commensurate with the time until site restoration is to begin. The council may take or require action as necessary to deal with extraordinary circumstances.*

No response is necessary at this time. This WAC does not apply to the proposed BP Cherry Point Cogeneration Project.

WAC 463-42-675 Site preservation plan suspended projects. *In the event that construction is suspended, a plan for site preservation shall be prepared at the earliest feasible time and the council shall be advised of interim concerns and the measures being taken to remedy those concerns. The site preservation plan shall address environmental, and public health and safety concerns, the scope of proposed monitoring and the provisions for funding or bonding to meet site preservation costs. It shall describe measures that will be taken to preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The preservation plan shall also address options for preservation and the costs and benefits associated with those options. The council may take or require action as necessary to deal with extraordinary circumstances.*

No response is necessary. This WAC does not apply to the proposed BP Cherry Point Cogeneration Project.

WAC 463-42-680 Site restoration terminated projects. *In the absence of a council determination as to the level of site restoration, restoration of the site to a reasonable approximation of its original condition prior to construction shall be required.*

No response is necessary. This WAC does not apply to the proposed BP Cherry Point Cogeneration Project.

WAC 463-42-685 Pertinent federal, state and local requirements.

(1) Each application submitted to the council for site certification shall include a list of all applicable federal, state, and local codes, ordinances, statutes, rules, regulations and permits that would apply to the project if it were not under council jurisdiction. For each listed code, ordinance, statute, rule, regulation and permit, the applicant shall describe how the project would comply or fail to comply with each requirement, the applicant shall discuss why such compliance should be excused.

(2) Inadvertent failure to discover a pertinent provision after a reasonable search shall not invalidate the application, but may delay processing the application as necessary to gather and consider relevant information.

To respond to Sections 1 and 2 above, BP should provide a list of all applicable federal, state, and local requirements for construction of the proposed BP Cherry Point Cogeneration Project. Include the associated facilities and describe how the project complies with each regulatory requirement. Reference should be made to Section 2.4 of the environmental report.

WAC 463-42-690 Amendments to applications, additional studies, procedure.

(1) Applications to the council for site certification shall be complete and shall reflect the best available current information and intentions of the applicant.

In the cover letter, BP should provide a statement that certifies the ASC is complete and reflects the best available current information and intentions of BP.

(2) Amendments to a pending application must be presented to the council at least thirty days prior to the commencement of the adjudicative hearing, except as noted in subsection (3) of this section.

(3) Within thirty days after the conclusion of the hearings, the applicant shall submit to the council, application amendments which include all commitments and stipulations made by the applicant during the adjudicative hearings.

(4) After the start of adjudicative hearings, additional environmental studies or other reports shall be admitted only for good cause shown after petitions to the council or upon request of the council, or submitted as a portion of prefiled testimony for a witness at least thirty days prior to appearance.

No response is necessary at this time for Sections 2-4 above.

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4.0 ASC Part II Guidelines and Criteria for the Environmental Report

The outline presented below for Part II of the ASC lists the recommended major headings and subheadings for the ASC environmental report (ER). The ER is intended to be an overview document in recognizable SEPA format. Specific technical details and analysis for many environmental disciplines should be provided in the technical appendices in Part III (see Section 5.0 of this chapter). Where appropriate, BP may combine subheadings to avoid redundancy or to improve clarity and conciseness.

Part II of the ASC should have a table of contents that provides a list of all key sections within the environmental report identified as Part II of the ASC and the technical appendices identified as Part III. The numbering and subheadings in the text below refers to the organizational format that is recommended for the ASC environmental report (and does not refer to subdivisions of this chapter).

ASC Requirements and Scoping

Throughout the PSS process, SHAPIRO has assisted EFSEC with public and agency meetings and contacting Indian tribes and non-governmental organizations. It is important to note, however, that formal scoping has not yet taken place for compliance with either SEPA or NEPA. Since one of the purposes of scoping is to identify alternatives for inclusion in the EIS, BP may be required to identify and assess the potential impacts of alternatives not included in the BP application.

Table of Contents

Provide a detailed table of contents for the environmental report and attached technical appendices.

1.0 Summary

Applicable regulations include:

NEPA Requirement

Applicable guidelines and criteria include:

- A. Provide a summary that states the proposed project's objectives, specifying the purpose and need, the major conclusions, significant areas of controversy and uncertainty, if any, and how the project meets the public interest. Identify the issues to be resolved, including the environmental choices to be made among alternative courses of action and the effectiveness of mitigation measures. Include a summary of the proposal, impacts, alternatives, mitigation measures, and significant adverse impacts that cannot be mitigated.

2.0 Description of the Proposed Project

Applicable regulations include:

WAC 463-42-125 Proposal – Site description.
WAC 463-42-145 Proposal – Construction on site.
WAC 463-42-155 Proposal – Energy transmission systems.
WAC 463-42-165 Proposal – Water supply system.
WAC 463-42-175 Proposal – System of heat dissipation.
WAC 463-42-185 Proposal – Characteristics of aquatic discharge systems.
WAC 463-42-195 Proposal – Wastewater treatment.
WAC 463-42-205 Proposal – Spillage prevention and control.
WAC 463-42-215 Proposal – Surface-water runoff.
WAC 463-42-225 Proposal – Emission control.
WAC 463-42-235 Proposal – Construction and operation activities.
WAC 463-42-255 Proposal – Construction methodology.
WAC 463-42-265 Proposal – Protection from natural hazards.
WAC 463-42-275 Proposal – Security concerns.
WAC 463-42-295 Proposal – Potential for future activities at site.
WAC 463-42-085 General – Mitigation measures.
NEPA Requirement

2.1 Proposed Action

Applicable guidelines and criteria include:

- A. A general description of the proposed location of project facilities should be provided, including the generation plant, the natural gas pipeline connections and associated facilities, the water supply facilities, and the substation and electrical transmission lines. This should include a brief description of key geographic features, climatological characteristics (prevailing winds, maximum/minimum temperatures, normal rainfall and 25-year and 100-year 24-hour precipitation events), surrounding land use, and designations of the project facility locations in applicable land use plans and zoning ordinances. A more detailed description of the various elements should be provided in ASC Part III Appendix D, Project Description. The intent of this technical report is to provide program specifics in order to manage environmental aspects of construction of the proposed project and to ensure a high quality project.
- B. Describe how the proposal meets the definition of and requirement for the purpose and need for the project.
- C. Demonstrate how the project meets the public interest.

2.2 Alternatives to the Proposed Action

Applicable regulations include:

WAC 463-42-645 Analysis of alternatives.
NEPA Requirement

Applicable guidelines and criteria include:

- A. Describe alternatives (including the No Action Alternative) that have been considered to accomplish the purpose and need of the proposed project. Address alternative plant sites considered along with alternative routes for the natural gas pipeline connections, water supply and discharge pipelines, and electrical transmission lines.

- B. Explain why some alternatives that were initially considered were eliminated from further study.
- C. Provide a comparison of the potential impacts of the alternatives considered, including the proposed project.
- D. Describe design alternatives to the proposed project that have been considered, and compare the potential impacts of these design alternatives to those of the proposed project.

2.3 Benefits or Disadvantages of Reserving Project Approval for a Later Date

Applicable regulations include:

WAC 197-11-440(5)(c)(vii)
NEPA Requirement

Applicable guidelines and criteria include:

- A. In response to WAC 197-11-440(5)(c)(vii), which addresses SEPA requirements for alternatives, describe the benefits and disadvantages of reserving project implementation for some future time, as compared with possible approval and implementation at this time.
- B. Briefly describe conditions if the project were not to go forward.

2.4 Pertinent Federal, State, and Local Requirements

Applicable regulations include:

WAC 463-42-685 Pertinent federal, state and local requirements.

NEPA requirements potentially apply whenever an action is required by the federal government. This WAC recognizes that this federal law could apply to large energy facility projects such as the BP project.

Applicable guidelines and criteria include:

- A. Describe how the requirement will be met for each applicable federal requirement, and indicate how the lead federal agency, if there would be one under NEPA, intends to meet the coordination and consultation requirements under such laws as Section 106 of the Historic Preservation Act, Section 404 of the Clean Water Act, the Endangered Species Act, the U.S. Fish and Wildlife Coordination Act, and any relevant Presidential Executive Orders, such as Wetlands, Environmental Justice, and the Children's Initiative.
- B. Describe any land use approvals or land use changes associated with the proposed location of project facilities that occurred before the ASC was submitted. This could include annexation, approval of conditional uses, approval of transmission line corridor(s), rezones, and similar actions.

2.5 Coordination and Consultation with Agencies, Indian Tribes, the Public, and Non-governmental Organizations

Applicable guidelines and criteria include:

- A. Describe the communications and interactions BP has had with the public, agencies, Indian tribes, and non-governmental organizations concerning the proposed cogeneration plant.
- B. Provide copies of relevant written responses resulting from the activities described above.

3.0 Existing Conditions, Environmental Impacts, and Mitigation Measures

3.1 Earth

Applicable regulations include:

WAC 463-42-265 Proposal – Protection from natural hazards.
WAC 463-42-302 Natural environment – Earth.

Applicable guidelines and criteria include:

For this section, detailed information should be summarized from ASC Part III Appendix G, Earth.

- A. Provide a summary description of natural hazards from Appendix G, Earth.
- B. Provide a summary description of the geologic conditions in the vicinity of the plant site, natural gas pipeline connections, water pipeline, and transmission line from Appendix G, Earth.
- C. Provide a summary description of the procedures to be used to minimize erosion in the vicinity of the plant site, natural gas pipeline connections, water pipeline(s), and transmission lines from Appendix G, Earth.
- D. Provide maps of the proposed project derived from Appendix G, Earth.
- E. Summarize the topographic modifications that would be required for construction of the plant site based on information from Appendix G, Earth.
- F. Summarize any other unique physical features (if present) in the vicinity of the plant site, water pipelines, natural gas pipeline connections, and along the transmission lines based on information from Appendix G, Earth.
- G. Summarize any potential for erosion, deposition, or change of any land surface, shoreline, beach, or submarine area due to any project work related to the plant site, water pipelines, natural gas pipeline connections, and the transmission lines based on information from Appendix G, Earth.

3.2 Air Quality

Applicable regulations include:

WAC 463-42-225 Proposal – Emission control.
WAC 463-42-312 Natural environment – Air.

Applicable guidelines and criteria include:

A primary issue for thermal generating plants is air emissions and their potential impacts on air quality.

- A. Prepare summary sections from the technical report addressing: (1) emission controls; (2) air quality and meteorology; (3) odor; (4) climate; and (5) dust and dust control as referred to in Appendix E, Air Quality.

3.3 Water

Applicable regulations include:

WAC 463-42-215 Proposal – Surface-water runoff.

WAC 463-42-322 Natural environment – Water.

Federal Executive Order 11988

Whatcom County Surface Water Ordinance

Applicable guidelines and criteria include:

Thermal generating plants can frequently have a need for large quantities of water. In addition, the generating plant and related equipment can potentially affect surface water and groundwater.

- A. Summarize the affected natural water environment, project impacts, and mitigation measures.
- B. Provide a summary that describes how surface water runoff and erosion will be controlled during construction and operation to ensure compliance with state water quality standards
- C. Indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use. Describe all existing water rights.
- D. Provide a summary from Appendix F, Water, that describes all background water quality data pertinent to the site, hydrographic study data, and receiving waters within 0.5 mile of any proposed discharge location. Identify any relevant characteristics that could influence the impact of any discharge.
- E. Summarize the potential for flooding and all protective measures to prevent possible flood damage to the site and facility.
- F. Describe the groundwater conditions on and near the site and any changes in groundwater movement, quantity, or quality that might result from project construction or operation.
- G. If the pipeline route passes through a floodplain, explain why the proposed project would require a water supply pipeline. This is pursuant to Federal Executive Order 11988 and will facilitate permitting by the U.S. Army Corps of Engineers and other federal agencies.

3.4 Wetlands and Vegetation

Applicable regulations include:

WAC 463-42-332 Natural environment – Plants and animals.

Applicable guidelines and criteria include:

Facilities constructed in areas that have sensitive environments such as wetlands must undergo a thorough review to ensure that potential impacts are minimized.

- A. Summarize the habitat in each project area from information provided in Appendix H, Plants and Animals.

- B. Summarize the findings of the Wetlands Delineation Report from Appendix H, Plants and Animals.
- C. Summarize the findings of the Biological Assessment in each project area from information provided in Appendix H, Plants and Animals.

3.5 Agricultural Crops and Livestock

Applicable regulations include:

WAC 463-42-362 Built environment – Land and shoreline use; (7) Agricultural crops/animals.

Applicable guidelines and criteria include:

- A. Provide a summary description of the existing conditions and impacts on agricultural crops and livestock from Appendix H, Plants and Animals.
- B. Summarize any effect on cropland from Appendix H, Plants and Animals.

3.6 Wildlife

Applicable regulations include:

WAC 463-42-332 Natural environment – Plants and animals.

Endangered Species Act

Migratory Bird Treaty Act

Bald Eagle Protection Act

Applicable guidelines and criteria include:

- A. Provide a summary that addresses habitat, population or density, and diversity of plants, fish, or other wildlife, potential impacts from the facility, and proposed mitigating measures. For this section, detailed information should be summarized from ASC Part III Appendix H, Plants and Animals.
- B. Provide a summary that addresses any federal or state listed threatened, endangered, or candidate species, or any noteworthy species or habitat in the project area, and potential impacts of the facility on those species. Identify any mitigating measures proposed to reduce those impacts.
- C. Provide a summary that addresses all fish or wildlife migration routes that may be affected by the facility. Identify any mitigating measures proposed to reduce those impacts.
- D. Provide a summary that addresses any species regulated by the Federal Migratory Bird Treaty Act and potential impacts of the project on those species. Identify any mitigating measures proposed to reduce those impacts.
- E. Provide a summary that addresses the presence of bald eagles within the project vicinity and the potential impacts on them from the project. Identify any mitigating measures proposed to reduce those impacts.

3.7 Energy and Natural Resources

Applicable regulations include:

WAC 463-42-342 Natural environment – Energy and natural resources.

Applicable guidelines and criteria include:

- A. Provide an accounting of the amount of natural gas, electricity, diesel fuel, gasoline, asphalt, and sand and gravel (and other fill materials) to be consumed during construction.
- B. Provide an accounting of the amount of electricity and natural gas required to operate the plant compared to the overall energy that the plant will generate.
- C. Provide calculations documenting the heat rate for the proposed power plant.
- D. Describe what sources will be used to provide natural gas, electricity, diesel fuel, gasoline, and sand and gravel for the power project.
- E. Describe what emergency fuels may be used by the power plant. Provide an estimate of the quantities and time expected for using these fuels.
- F. Describe the capacity of the natural gas delivery system that will supply the power plant for the 30 years of its operation (e.g., the Ferndale pipeline and other lines that service or could service the proposed facility).
- G. Describe the capacity of the electrical facilities (e.g., BPA Custer Substation, Puget Sound Energy or BP-owned generating units) that will receive power from the plant for the 30 years of its operation.
- H. Explain how the electricity will be routed into the BPA and/or Puget Sound Energy transmission grid. Describe the current and future capacity of the grid to transport the electricity that the plant will produce. Considering the capacity of the existing BPA 230-kV transmission lines originating from the Custer Substation, assess the cumulative effects of the proposed BP Cherry Point Cogeneration Project, other existing power generation plants served by these lines, and any proposed power generation plants that could interconnect with these BPA power lines.
- I. Provide a summary discussion on the availability of natural gas to meet demands of the cogeneration plant.
- J. Describe all nonrenewable resources that will be used or made unusable by the plant. Such resources would include, but are not necessarily limited to, natural gas, emergency fuels, sand and gravel and other fill materials used during construction, diesel fuel and oil for construction equipment, and loss of agricultural land.
- K. Describe how this plant could affect the availability of natural gas for other gas users in northwestern Washington in the future.
- L. If treated water will be used, describe how such reuse could reduce the overall consumption of water in Whatcom County.
- M. Provide Best Management Practices for construction and operation to minimize the use of nonrenewable resources such as natural gas and petroleum-based fuels and lubricants.
- N. Explain how the efficiency of the proposed cogeneration plant compares to other types of energy generation plants.

3.8 Noise

Applicable regulations include:

WAC 463-42-352. Built environment – Environmental health.

Applicable guidelines and criteria include:

- A. Provide a summary documenting the analysis of construction and operation noise performed as part of ASC Part III Appendix K, Noise, and identify any mitigating measures proposed to reduce the impacts.

3.9 Land Use

Applicable regulations include:

WAC 463-42-362 Built environment – Land and shoreline use.

Applicable guidelines and criteria include:

- A. Briefly describe general land use patterns, land use plans, and zoning within a radius of 25 miles from the plant site. Provide both narrative and illustrative depictions of these conditions.
- B. Describe the land uses immediately surrounding the plant site, and include the distances to the nearest residences and other local sensitive resources such as parks, schools, daycare facilities, and churches.
- C. Analyze the consistency with comprehensive plans and compatibility with existing land use.
- D. Describe impacts the proposed project may have on surrounding land uses and identify potential mitigation measures. Include designations such as sensitive areas, shorelines, buffers, and other land use classifications.
- E. Describe the land use permit requirements that would apply to all elements of the project as proposed. Because a cogeneration facility is permitted in Whatcom County's Heavy Impact Industrial Zone with a Conditional Use Permit, BP may need to meet requirements for that permit.

3.10 Visual Resources, Light and Glare

Applicable regulations include:

WAC 463-42-362 Built environment – Land and shoreline use; (3) Light and glare; (4) Aesthetics.

WAC 463-42-342 Natural environment – Energy; (4) Scenic resources

Applicable guidelines and criteria include:

- A. Provide a description of proposed lighting for the plant site and an analysis of the impact of viewing the plant at night from Lake Terrell Wildlife Area and White Rock, B. C. Describe any mitigating measures proposed to reduce that impact.
- B. Provide visual simulations of the plant as viewed from key public locations (e.g., White Rock, B.C., Lake Terrell Wildlife Area, and all private residences) within 2 miles of the plant. Indicate the anticipated size of a plume, if any, and the likely duration and interval of occurrence of such plumes.
- C. Provide visual simulations of the proposed electrical transmission lines and provide an impact analysis for the transmission lines.
- D. Identify where, if applicable, existing trees and windbreaks planted on or near Grandview Road and Kickerville Road would be removed during construction of the natural gas pipeline connections, the generating plant or transmission lines. Provide a conceptual revegetation plan for replacing trees that would be removed.
- E. Summarize the conceptual landscape plan for the plant and associated facilities.

3.11 Population, Housing, and Economics

Applicable regulations include:

WAC 463-42-362 Built environment – Land and shoreline use; (2) Housing.

WAC 463-42-535 Socioeconomic impact.

Environmental Justice (Federal Requirement)

Applicable guidelines and criteria include:

- A. Provide a summary documentary analysis of potential construction and operation impacts on population, housing, and economics, as described in detail in ASC Part III Appendix L, Population, Housing, and Economics. Identify any mitigating measures that would be proposed to reduce impacts.

3.12 Public Services and Utilities

Applicable regulations include:

WAC 463-42-362 Built environment – Land and shoreline use; (5) Recreation.

WAC 463-42-382 Built environment – Public services and utilities.

Applicable guidelines and criteria include:

Recreation

Identify each of the potentially affected public, semi-public, and private parks, recreational facilities, and major recreational opportunities within the project's socioeconomic study area. For each of these facilities, provide the following information:

- A. Describe the general types of recreational experiences available (e.g., camping, picnic areas, parks, fishing, boat launches, beaches, hiking/trails, off-road recreation, wilderness recreation, etc.).
- B. Describe the tentative schedule for when construction activities would likely affect each of the facilities and what the anticipated level of usage would be by the construction workforce.
- C. Describe any potential construction and operational impacts on recreational facilities and users from:
 - 1. Aesthetic impacts of clearing, new roads, the power plant, transmission lines, and other facilities.
 - 2. Visual impacts from fog generation or other air pollution as described in Appendix E, Air Quality.
 - 3. Impacts of noise on recreationists and the recreational experience as described in Appendix K, Noise.
 - 4. Direct impacts from project-related use to facilities, number of recreational users, and recreational experiences.
 - 5. Indirect displacement of usual recreational users by the construction workforce staying at camping sites or using facilities.
 - 6. Impacts on sport fishing or hunting, if any, from soil erosion or potential oil or other hazardous materials spills during construction and operation.
 - 7. Any other potential direct, indirect, or cumulative impacts that users might experience.
- D. Discuss mitigation measures to reduce potential impacts described above and the subsequent impacts after mitigation.

Fire

Identify all applicable onsite and offsite fire protection services that would normally be responsible for fires and emergencies associated with the proposed cogeneration plant or its facilities, and provide the following information:

- A. Generally describe the proposed onsite firefighting services during both construction and operation of the proposed cogeneration project. BP should include a brief description of the proposed project's Emergency Response Plan (e.g., those changes to the BP Cherry Point Refinery Emergency Response Plan that apply to the cogeneration plant) as described in detail in Appendix J, Emergency and Security Plans.
- B. Describe the number of personnel that typically are on duty and/or on-call at the BP Cherry Point Refinery. This description should address the number of personnel who are volunteers versus full-time paid employees. Describe the typical number of incidents per year for existing onsite firefighting personnel. Describe the general types of incidents and if there are seasonal or operational peaks.
- C. Estimate the additional personnel, trucks, equipment, special natural gas/petroleum firefighting equipment, and/or other facilities required at the cogeneration plant and/or the BP Cherry Point Refinery to provide adequate firefighting capabilities for combined peak risks associated with the cogeneration plant and the refinery. Describe how personnel and equipment would be distributed between the proposed cogeneration plant and the existing BP Cherry Point Refinery.
- D. Describe if local firefighting departments and/or special fire districts would be needed to assist onsite personnel during construction (i.e., for accidents and fires) and operation (i.e., for explosions and fires) of the project on a routine basis. Describe any proposed agreements with local government firefighting services to respond or not respond to emergencies during construction or operation of the plant. Describe how such requests for services would be made. Specifically identify the number and types of personnel and/or equipment that could be requested to assist onsite personnel.
- E. Describe any existing or proposed working agreements with local government firefighting services to assist onsite personnel in the event of an emergency. Also describe any existing or proposed working agreements with non-local firefighting services to assist onsite personnel in the event of an emergency associated with the cogeneration project or related facilities. Describe how such requests for services are received. Specifically identify the number and types of personnel and/or equipment that could be requested to assist onsite personnel.
- F. Describe any potential impacts on local government firefighting services that could be requested to assist at the proposed cogeneration plant. This analysis should address the following:
 - 1. The number and types of personnel typically on duty and on-call,
 - 2. Employee or volunteer status of personnel,
 - 3. The typical number of calls received per year,
 - 4. Seasonal peaks,
 - 5. General types of calls,
 - 6. The number and types of pumping trucks, and
 - 7. Other types of equipment available to fight large industrial fires.This discussion should include input from local fire marshals, as appropriate.
- G. Propose mitigation measures to address potential impacts on local government fire protection services and the resulting reduced impacts after implementing the mitigation.

Police

Identify all applicable BP security, police, and/or sheriff personnel that would normally be responsible for responding to public safety calls associated with the proposed cogeneration plant or its facilities. Provide the following information:

- A. Generally describe the proposed onsite security services during construction and operation of the proposed cogeneration project. BP should include a brief description of the proposed project's Emergency Response Plan (e.g., those changes to the BP Cherry Point Refinery Emergency Response Plan that apply to the cogeneration plant) as described in detail in Appendix J, Emergency and Security Plans.
- B. Describe the number of security personnel that typically are on duty and/or on-call at the BP Cherry Point Refinery. This description should address the number of personnel who are volunteers versus full-time paid employees. Describe the typical number of incidents per year for existing onsite security personnel. Describe the general types of incidents and if there are seasonal or operational peaks.
- C. Estimate the additional personnel and/or equipment that would be required in order to provide adequate security capabilities for combined peak risks associated with the cogeneration plant and the refinery. Describe how personnel and equipment would be distributed between the proposed cogeneration plant and the existing BP Cherry Point Refinery.
- D. Describe if local police and/or sheriff departments would be needed to complement onsite personnel during construction and operation of the project on a routine basis. Describe any proposed agreements with local government police or sheriff departments to respond or not respond to public safety incidents during construction or operation of the plant. Describe how such requests for services would be made. Specifically, identify the number and types of personnel and/or equipment that could be requested to assist onsite personnel.
- E. Assuming that local government police or sheriff departments would respond to incidents at the cogeneration plant or its associated facilities, describe the following:
 1. The location of the police station that would normally respond to public safety calls;
 2. The typical number of police officers and support personnel designated by full-time and part-time status in the affected police stations;
 3. The typical number of calls per year, seasonal peaks, general types of calls, and average response time in the affected police stations;
 4. The types of equipment available for emergency responses; and
 5. How calls are received, units are dispatched, and coordination occurs with other departments (i.e., 911, cooperative agreements, etc.).
- F. Analyze what impacts the additional needs for public safety services at the proposed cogeneration plant (based on the information provided to address Criterion E above) may have on each of the potentially affected local government police and/or sheriff departments.
- G. Propose mitigation measures to address potential impacts on local government public safety services and the resulting reduced impacts after implementing the mitigation.

Schools

- A. Identify all school districts in Ferndale, Birch Bay, Blaine, Bellingham, and other locations in the study area where in-migrating construction or operation personnel may be housed.
- B. Provide the following information for the school districts identified above if there is an in-migrating construction workforce (see Appendix L):
 1. Number of schools by type for each potentially affected district.

2. The existing capacities within each school district, by school if appropriate, and the current utilization of each.
3. Based on the number of anticipated in-migrating workers during construction or operation that would bring school-age children to the study area during the school year, estimate additional facilities or teachers and other personnel that would be required during the construction and operation periods. Describe the likely impact of these additional needs on each school.
4. Proposed mitigation measures to address impacts, and the resulting reduced impacts after implementing mitigation.

Parks or Other Recreational Facilities

- A. Information requests for parks and recreation are included in criteria for WAC 463-42-362(5) above.

Maintenance

- A. Information requests for public maintenance services are included in criteria for WAC 463-42-535 (Socioeconomic Impacts).

Communications

- A. Identify the newspaper, telephone, television, and radio companies that service the project area.
- B. Identify procedures to avoid potential service interruption for any in-ground communications facilities during construction or operation of the proposed project.
- C. Identify procedures to be followed in response to a project-related interruption of communications.

Water/Stormwater

- A. Briefly describe the potable water, wastewater, and stormwater facilities discussed in detail in ASC Part III Appendix F, Water.
- B. Present a summary of the public water supplies information prepared ASC Part III Appendix F, Water.
- C. Identify procedures to avoid interrupting the Whatcom County PUD No. 1's water service during construction and operation.
- D. Identify procedures to be followed in response to a project-related interruption of water service to the Whatcom County PUD No. 1.
- E. Briefly describe the proposed stormwater facility capacity and mitigation measures that would be implemented as discussed in detail in ASC Part III Appendix F, Water.

Sewer/Solid Waste

- A. Briefly describe the sewer conveyance and waste treatment facilities in or around the BP Cherry Point Refinery and the community of Birch Bay; whether or not those facilities have excess capacity, and if so, how much; whether or not the project would use those facilities; and whether or not the facility capabilities can meet the project construction and operation needs.
- B. If sufficient sewer or treatment capacity does not exist for use by the project workforce, describe mitigation measures designed to reduce impacts and what the impacts would be after implementing those measures.

- C. Identify the location of solid waste transfer and disposal facilities, available collection services, and who operates them.
- D. Estimate the annual amount of solid waste that would be generated during construction and operation of the project. Indicate where that waste would likely be disposed, and indicate the capacity of the existing facility or facilities to accommodate that waste.

Emergency Medical Services

Identify all applicable BP and community emergency medical service personnel that would normally be responsible for responding to emergency calls associated with the proposed cogeneration plant or its facilities. Provide the following information:

- A. Generally describe the proposed onsite emergency medical services (including medical clinics) during construction and operation of the proposed cogeneration project. BP should include a brief description of the proposed project's Emergency Response Plan (e.g., those changes to the BP Cherry Point Refinery Emergency Response Plan that apply to the cogeneration plant) as described in detail in Appendix J, Emergency and Security Plans.
- B. Describe the number of emergency medical personnel that typically are on duty and/or on-call at the BP Cherry Point Refinery. This description should address the number of personnel who are volunteers versus full-time paid employees. Please describe the nature of any emergency medical training that non-medical refinery personnel may receive. Describe the typical number of incidents per year for existing onsite emergency medical personnel. Describe the general types of incidents and if there are seasonal or operational peaks.
- C. Estimate the additional emergency medical personnel, equipment, or services (including medical clinics) that would be required to provide adequate emergency medical service capabilities for combined peak risks associated with the cogeneration plant and the refinery. Describe how these personnel, equipment, and services would be distributed between the two facilities.
- D. Describe if community emergency medical services would be needed to complement onsite personnel during construction and operation of the project on a routine basis. Describe any proposed agreements with these services to respond or not respond to emergency medical incidents during construction or operation of the plant. Describe how such requests for services would be made.
- E. Provide the likely number and types of emergency medical personnel and/or equipment that could be requested to assist onsite personnel (routine and worst-case scenario) at the cogeneration plant. Describe the role of these emergency medical personnel in relationship to onsite BP personnel.
- F. Identify all ambulance services that would under normal or worst-case scenarios respond to emergencies at the cogeneration plant site. For each, the following information should be provided, as appropriate:
 - 1. Number of volunteer and paid emergency medical technician personnel.
 - 2. Number of personnel typically on duty and on-call.
 - 3. Typical teaming of personnel per emergency or rescue vehicle.
 - 4. Average number of calls per year, seasonal peaks, major types of calls (e.g., residential/industrial accidents, auto accidents, and illness), and average response time.
 - 5. Number and types of emergency and rescue vehicles.
 - 6. Types of specialized equipment available, including extraction equipment and those needed to respond to explosion and large natural gas, petroleum, or industrial fires.

7. Availability of special support services, such as air ambulance service, burn units, and so forth.
 8. How incident calls are received, units are dispatched, and coordination occurs with other ambulance services when needed (i.e., 911, cooperative agreements, etc.).
 9. Proposed mitigation measures to address potential impacts on community ambulance services, and the resulting reduced impacts after implementing mitigation.
- G. Assess potential impacts on community emergency medical services by identifying the nearest hospitals and medical clinics that would under normal or worst-case scenarios service accident victims associated with the proposed cogeneration plant and its associated facilities. For each hospital and clinic identified, the following information should be provided as appropriate:
1. Generally describe the types of medical services available at the nearby hospitals and medical clinics.
 2. Generally describe the number of doctors, nurses, and support personnel typically on duty and on-call at each medical facility.
 3. Describe the typical and/or seasonal peak number of emergency/trauma and other patients received by the hospital or medical clinic, and provide an estimate of the overall use of the emergency/trauma facilities at nearby hospitals and medical clinics.
 4. If nearby hospitals and/or medical clinics do not have required special medical services or do not have available capacity, explain how and where patients are typically referred and/or transported.
 5. Assess if nearby hospitals or medical clinics would need to acquire additional personnel or equipment to meet potential demands for emergency medical services during construction (i.e., for accidents and fires) and operation (i.e., for explosions and fires) of the proposed cogeneration plant. Describe the effects of such impacts on nearby hospitals and medical clinics.
 6. Propose mitigation measures to address the potential impacts on community hospitals or medical clinics, and the resulting reduced impacts after implementing mitigation.

Public Utilities

- A. Describe Puget Sound Energy and BPA electrical services in Whatcom County and the nearby facilities that could be affected by the project. Describe any planned upgrades to the nearby systems. Describe how power from the project would be transmitted to the power grid, whether new or expanded substations would be required as a result, and whether there is extra capacity on the interconnecting lines to carry the power.
- B. Describe BP-owned, Cascade Natural Gas Company, Williams Companies, and any proposed natural gas pipeline service in Whatcom County. Could any of the utilities be affected by the project? Describe any planned upgrades to these systems in the proximity of the proposed project site. Describe how natural gas required for the proposed cogeneration plant would be transported to the project site. Would new facilities be needed or would existing operation of the pipeline(s) be required to provide service to the cogeneration plant?
- C. Describe whether the project would require any utility to change its operations or staffing to meet project needs.

Fiscal Impacts

- A. Using the information provided in Appendix L, describe what the costs will be for providing the additional public services (municipal, county, or special district) needed during construction and operation as described in responses to criteria for WAC 463-42-382 in Section 2.2.
- B. Indicate whether or not anticipated local government revenues would be sufficient to mitigate the construction and operational impacts described in responses to criteria for WAC 463-42-382 in Section 2.2.
- C. If adequate tax revenues are not provided for any one or a number of the utilities and services, indicate what additional mitigation measures would be implemented.

3.13 Cultural Resources

Applicable regulations include:

WAC 463-42-362 Built environment—Land and shoreline use; (6) Historic and cultural preservation.

Applicable guidelines and criteria include:

- A. Summarize the cultural resources technical reports, if any, produced by BP's consultants and attach one copy of each technical report to the ASC cover letter. This summary should address background research, consultation, field surveys, test pits, conclusions, and impact analyses on cultural resources and historic properties on BP-owned land, with an emphasis on the proposed location of the power plant, transmission line corridor, and substation.
- B. Conduct surveys of cultural resources and historic properties for the project facilities not included in Criterion A, above, including a records search at the Washington Office of Archaeology and Historic Preservation (OAHP). The areas to be surveyed include the routes of the natural gas pipeline connections, the water supply pipeline, and the electrical transmission line. Provide a report of the surveys indicating what was found, including locations with respect to the corridors, an analysis of impacts, and whether or not further study is required.
- C. If the results of the surveys conducted in response to Criterion B above indicate findings of either cultural resources or historic properties within or near the construction corridors of the project facilities, conduct and report on the needed additional studies, impact analyses, and mitigation measures that would be incorporated into the project to avoid or minimize impacts.
- D. The Council recommends that BP hire a qualified archaeologist and/or tribal representative to monitor earth-disturbing activities during construction. Describe the procedures that will be followed if cultural resources are encountered during construction, including stop-work orders, emergency contacts (e.g., EFSEC, SHPO, and BPA), and mitigation plans.
- E. Describe the communications BP has had with affected tribes, and describe the tribal contacts planned during the remainder of the application review process.
- F. Describe any government-to-government consultation and agreements that have occurred between BPA and any tribes, and BP's role in assisting implementation.

3.14 Traffic and Transportation

Applicable regulations include:

WAC 463-42-372 Built environment – Transportation.

Applicable guidelines and criteria include:

An issue for the construction of new projects is the potential for impacts on transportation systems.

- A. Summarize expected traffic volumes as a result of construction.
- B. Summarize the access routes for moving heavy loads, construction materials, or equipment.
- C. Summarize expected traffic volumes during normal operation of the facility.
- D. Discuss anticipated maintenance access to transmission facilities and consistency with local comprehensive transportation plans.
- E. Identify any impacts on surrounding roadways and proposed mitigation measures for each of the Criteria A through D above.
- F. Briefly describe existing roads, and estimate volume, types, and routes of vehicular traffic during construction and operation of the facility. Identify standards to be used in improving existing or constructing new roads to meet the requirements of the facility. Identify any new roads and responsibility for maintenance.
- G. Summarize the discussion of waterborne, rail, and air traffic from ASC Part III Appendix I, Transportation.
- H. Summarize the discussion of parking requirements from ASC Part III Appendix I, Transportation.
- I. Summarize the discussion about movement/circulation of people and goods from ASC Part III Appendix I, Transportation.
- J. BP should identify all hazards to traffic caused by construction or operation of the facility. Except where security restrictions are imposed by the federal government, BP should indicate the manner in which fuels and waste products would be transported to and from the cogeneration plant, including a designation of the specific routes to be used.
- K. Summarize the discussion of traffic hazards from ASC Part III Appendix I, Transportation.

3.15 Health and Safety

Applicable regulations include:

WAC 463-42-155 Proposal – Energy transmission systems.

WAC 463-42-205 Spillage prevention and control.

WAC 463-42-352 Built Environment – Environmental health; (1) Noise; (2) Risk of fire or explosion; (3) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials; (4) Safety standards compliance.

WAC 463-42-525 Emergency plans.

Applicable guidelines and criteria include:

Transmission Lines

- A. Provide an estimate of electromagnetic field (EMF) levels for the new transmission lines at 50-foot intervals out to 500 feet as measured from the center of each proposed transmission line alignment.
- B. Identify any receptors within 500 feet of the center of each proposed transmission line alignment and the anticipated EMF level at each receptor.
- C. Discuss how potential receptor EMF levels influenced route selection, if at all.

- D. Identify any facilities/structures along the proposed route that may be affected (e.g., electric shock potential) by the electric field from the proposed new transmission lines and what measures would be implemented to reduce/minimize those effects.
- E. Describe how seismic, geologic, “wind-loading,” and “ice-loading” factors have been considered in the design of the transmission lines.
- F. Discuss how aircraft flight patterns were considered in route selection and if any tower marking provisions are planned.
- G. Describe the grounding system for all project facilities.

Spills

- A. Summarize the proposed Spill Prevention and Control Plan presented in ASC Part III Appendix J, Emergency and Security Plans.

Risk of Fire or Explosion

Provide the following information for the generation plant and the natural gas pipeline connections, the water pipelines, and the transmission lines:

- A. Discuss measures that would be used to protect any existing natural gas pipelines during construction.
- B. Describe the seismic design criteria for the generation plant, electric transmission line towers, and natural gas pipeline connections.
- C. List all compressed gases that would be stored onsite permanently and temporarily. Estimate quantities and identify storage and use locations.
- D. Describe the fire detection and protection systems that would be used at the cogeneration plant.
- E. Describe firefighting training that BP would provide for personnel associated with the project and for members of area fire departments, if applicable. These details should be included in the local service agreements negotiated prior to starting operation.
- F. Describe the division of responsibility between personnel associated with the project and members of the area fire departments, if any, in the event of a fire or explosion. These details should be included in the local service agreements negotiated prior to starting operation.
- G. Explain how medical emergencies associated with fire and explosion would be handled. Describe the role of BP personnel and area emergency medical service, if any, in such emergencies. These details should be included in the local service agreements negotiated prior to starting operation.
- H. Describe the frequency and manner of natural gas connection inspections. Include a list of events that would require an inspection to occur. Indicate who would perform the inspection and how soon it would occur after a triggering event.
- I. Describe the system for detecting natural gas connection leaks and how a leak would be controlled or stopped. Different methods might be required whether or not the natural gas supplies delivered to the proposed plant would be odorized, or if BP proposes to odorize natural gas at the plant.
- J. Identify the location of and describe the emergency response shut-off valves for the natural gas pipeline connections, including the capability to manage breaks or leaks in the pipeline.
- K. Describe notification requirements to federal or state authorities in the event of a natural gas pipeline release from any potential source of natural gas delivered to the cogeneration plant site.

- L. Provide the Maximum Allowable Operating Pressure (MAOP), the Maximum Operating Pressure (MOP), and the Percent Specified Minimum Yield Strength (%SMYS) for each natural gas pipeline connection.

Releases or Potential Releases to the Environment Affecting Public Health, such as Toxic or Hazardous Materials

- A. Provide a list of all toxic or hazardous materials that would be stored/used onsite during both construction and operation (following WAC Chapter 173-303, SARA Title III, CERCLA, MTCA, and TSCA as appropriate). Indicate the quantities involved, storage locations, and volume of the largest storage container for each material.
- B. Provide a list of all hazardous waste materials that would be produced during construction and operation. Indicate the quantities, storage locations, and planned manner of disposal.
- C. Describe procedures/plans for complying with all applicable regulations/statutes (e.g., WAC Chapter 173-303, SARA Title III, CERCLA, MTCA, and TSCA).
- D. Describe a worst-case scenario for a release of toxic or hazardous material present on the plant site during construction and operation. Include a description of impacts of such releases on the public.

Safety Standards Compliance

- A. Summarize all federal, state, and local health and safety standards that would normally be applicable to the construction, operation, and maintenance activities of this project. Specifically, address any activities that would use radiation sources to radiograph components associated with the:
 - 1. Generation plant,
 - 2. Water supply pipeline,
 - 3. Electrical transmission lines,
 - 4. Natural gas pipeline connections, and
 - 5. Wastewater facilities.
- B. Summarize the emergency plans for construction, operation, and maintenance that will be described in ASC Part III Appendix J, Emergency and Security Plans.
- C. To define existing health risks, complete, if appropriate, a Phase I and a Phase II Environmental Assessment for project properties (e.g., generation plant site, water pipeline route, access road, natural gas pipeline connections route, and transmission line route) to confirm the absence/presence of soil contaminants. List any detected contaminants and their respective locations and concentrations. If contamination is present, describe how it will be managed/dealt with prior to or during construction of the cogeneration plant.

4.0 References Cited

Applicable regulations include:

WAC 463-42-095 General – Sources of information.

Applicable guidelines and criteria include:

- A. List all references used to prepare the ASC environmental report. Other references should be cited in ASC Part III Appendix B, General Sources of Information.

5.0 Acronyms and Abbreviations

Applicable guidelines and criteria include:

- A. Provide a list of acronyms and abbreviations and their corresponding terms used in the ASC.

6.0 List of Preparers

Applicable regulations include:

NEPA Requirement

Applicable guidelines and criteria include:

- A. List key individuals who were involved in preparing the ASC, each person's responsibility, company affiliation, and title.

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5.0 ASC Part III Guidelines and Criteria for Technical Appendices

This section provides the guidelines and criteria for the recommended appendices to the ASC Environmental Report.

Appendix A: Assurances

- A. Provide specific information regarding the insurance, bonding, or other arrangements BP has made or will make to mitigate environmental damage or loss due to construction, operation, or maintenance of the project. It may be appropriate to provide the assurance statement as an attachment to the cover letter.

Appendix B: General Sources of Information

- A. List all of the studies conducted by the proponent or its consultants regarding the proposed project including the dates when each study was conducted and the date of any reports prepared for each study.
- B. Provide appropriate references in addition to those cited in the ASC environmental report.
- C. List the sources of manufacturer's information for data used in the ASC (e.g., combustion turbine emission data) as appropriate.

Appendix C: Legal Descriptions and Ownership

Provide legal descriptions and ownership information for all portions of the site to be certified. This information should be provided for the following:

- A. Cogeneration plant site.
- B. Natural gas pipeline connections and associated facilities, i.e., meter stations, compressor stations, and odorizing stations.
- C. Each transmission line and substation to be included in the project.
- D. Water pipelines used to provide the project's water supply.
- E. Land required to gain access to the facilities listed above.

Appendix D: Project Description

Site Description

- A. Provide a general description of the proposed location of project elements, including the generation plant, the natural gas pipeline connections and associated facilities, the water supply facilities, and the substation and electrical transmission lines. This should include a brief description of key geographic features, climatological characteristics, surrounding land use, and designations of the project facility locations in applicable land use plans and zoning ordinances. A more detailed description of the various elements should be provided in the appropriate technical appendices.

- B. Provide general graphics that show the regional location of the proposed project and more detailed graphics that show the location of key project elements.
- C. Provide detailed graphics that show the pipeline: (1) the alignment of the natural gas pipeline connections in the vicinity of the project site; (2) the water supply pipelines from within BP's property; (3) the wastewater discharge pipeline to the wastewater treatment plant; and (4) the transmission lines on a map at a scale adequate to locate the alignment in the field (such as 1:2,400).
- D. Show the proposed operation and maintenance corridor and fence lines for each of the project facilities at a scale of 1:2,400.

Onsite Facilities

- A. Plant Site Arrangement – Provide a written description of the plant layout. Provide plan view and project elevation drawings.
- B. Project Configuration and Performance – Identify primary components and their subsystems, and provide a summary description of the project's operation.
- C. Combustion Turbines – Describe the machines to be used, and provide manufacturer's performance data. Describe emission and noise controls, and provide a heat and mass balance flow diagram. Identify the key subsystems. Compare the proposed system with other commercially available types, and explain the rationale for the choice.
- D. Heat Recovery Steam Generators – Indicate the number of HRSGs to be installed, and describe the HRSGs and their general operating parameters. Describe the emission control equipment, and how blowdown from the HRSGs would be managed.
- E. Steam Turbine – Describe the steam turbine that will be used, and provide specific operating parameters. Identify the primary components.
- F. Electric Generators – Describe the combustion turbine-driven generators and steam turbine-driven generator, and identify associated auxiliary equipment.
- G. Steam System – Describe the steam system, and provide a piping diagram and general operating parameters.
- H. Air-cooling System – Provide information regarding this system in response to the criteria listed for WAC 463-42-175.
- I. Electrical Interconnection – Describe the system to transmit power from the site and the proposed interconnection configuration to the 230-kV BPA transmission line. Also, provide a plant one-line diagram.
- J. Ancillary Systems – Describe plant ancillary systems such as fire control, instrument/service air, instrumentation and control, and backup power supplies.
- K. Natural Gas Fuel System – Describe the system, including pipe specifications, from the points of interconnection. List the applicable codes. Provide operating characteristics and procedures, and provide a piping diagram to the interconnection points. Describe control and safety features, and describe construction and inspection methods. Provide a complete description of any new compressor equipment to be used, if any.
- L. Capital Costs – Provide the total capital cost for the project in table format with specific entries for items such as major components, land, indirect costs, contingency, engineering, and construction.
- M. Describe plant construction sequence, including site preparation activities, cuts and fills, stockpile management, and proposed final site contours. Also, describe the purpose, type, and approximate quantity of any proposed filling or grading. Indicate the source of fill material.
- N. Describe the access roads to be used or developed for the plant site and transmission line corridor, including required regulatory or other design standards. Indicate the

- extent to which existing roads would be upgraded, and the construction of new roads, if any, including proposed construction methods and paving materials.
- O. Describe the size, type, and purpose of storage tanks to be developed on the plant site. Provide design criteria for the tanks, including control and safety features.
 - P. Describe the location and size of temporary laydown, staging, and parking areas to be used during construction.
 - Q. Describe the type, quantity, and purpose of any hazardous materials to be used, stored, and/or generated onsite, both for construction and operation. Provide information on control and safety features.
 - R. Describe the transportation systems, modes, and routes to be used to transport materials, equipment, and facility components to the site. Include railways, roads, air, and waterways, as applicable, and discuss any new facilities required.

Energy Transmission Systems

- A. Provide detailed maps that show the construction and operational corridors of existing and proposed transmission lines associated with the project (including those lines serving the refinery).
- B. Provide graphics that illustrate the design and dimensions of the transmission line towers.
- C. Describe the proposed transmission line system including length, width of construction corridor, capacity, tower design and dimensions, materials used for tower construction, construction schedule and workforce, and the locations of laydown areas and access roads.
- D. Identify any unique construction techniques required for the transmission line system.
- E. Identify how materials would be transported to the transmission line construction sites.

Water Supply System

- A. Identify and describe the location, source, and conveyance system for proposed boiler feed water and potable water from the source to the point of use in the cogeneration plant.
- B. Identify the proposed peak and average use rates in gallons per minute.
- C. Identify the construction methods and schedule for the conveyance system.
- D. If the project receives water from the freshwater pond adjacent to the refinery (from Whatcom County PUD No. 1), include information on pond discharge location, retention pond size, and design.
- E. List existing refinery facilities and utilities that are near the proposed water pipeline alignment and describe measures to avoid impacts on these or other facilities and utilities in the vicinity of construction.

System of Heat Dissipation

- A. Describe the proposed heat dissipation system, including equipment and operating characteristics.
- B. Provide a diagram of the proposed system showing operating parameters.
- C. Identify the energy requirements for system operations.
- D. Describe and compare the alternative heat dissipation systems investigated. Include size, water use (if any), power requirements, costs, and plume size (if water-cooling were to be used).

Characteristics of Aquatic Discharge Systems

- A. Describe the refinery's existing NPDES discharge point to Puget Sound waters since the blowdown water from the proposed plant may discharge to the refinery wastewater treatment system. Provide a description of the dilution system currently used at the BP (ARCO) pier.
- B. Provide an estimate of quantities, a description of the resulting wastewater that would be discharged through the NPDES discharge point, and any improvements that may be needed.

Wastewater Treatment

- A. Provide a summary description of wastewater resulting from the project, including steam system blowdown (if any) and sanitary sewage streams, and their subsequent treatment and discharge.
- B. If sanitary wastewater would be used or recycled from plant operations, describe the basic uses and volumes and, if appropriate, treatments.
- C. A more detailed description of these facilities and procedures should be presented in Part III of the ASC Appendix F, Water.

Spillage Prevention and Control

- A. Provide a summary description of the project's proposed Spill Prevention and Control Plan, showing control measures and equipment shared with the refinery, where applicable. The plan, which should cover each facility and project stage (construction, operation, and maintenance), should be described in Part II of the ASC Appendix J, Emergency and Security Plans. The prepared Spill Prevention and Control Plan must be submitted to EFSEC for review and approval prior to construction.

Surface Water Runoff

- A. Provide a detailed description of stormwater collection streams and their subsequent treatment and discharge.
- B. Present a summary of the more detailed surface water runoff control information based on Criterion B under Construction Methods, as provided in Appendix F, Water.

Emission Control

- A. Provide a detailed description of emission controls in ASC Part III Appendix E, Air Quality, and summarize the information in the ASC Part II environmental report.

Construction and Operation Activities

- A. At a minimum, include the following schedules for the plant; natural gas pipeline upgrades; transmission lines, interconnections, and substation; and water supply lines:
 - 1. Design
 - 2. Site preparation
 - 3. Construction
 - 4. Major component delivery
 - 5. Start-up testing
 - 6. Commercial operation

- B. Define the normal working hours and number of shifts planned for construction. If more than one shift is anticipated, indicate how the daily workforce would be divided between the shifts.
- C. Describe the anticipated plant operation schedule.
- D. Provide the normal daily staff numbers by shift for operation. Also, describe how these numbers will increase for routine maintenance and emergency repairs.
- E. Provide the frequency and duration of shutdown for normal maintenance.

Construction Methods

- A. Briefly describe existing conditions and include current use, general topography with slopes noted, and onsite soils for watercourses, wetlands, or other sensitive areas proposed for construction.
- B. Describe the general and specialized construction approaches to be used at all sites, including the following:
 - 1. Site preparation, including any rerouting of water (or dewatering), removal of vegetation, stockpiling of topsoil, and the use of any structural fill and its source.
 - 2. Runoff and erosion control plans.
- C. Describe the conceptual construction approaches, as appropriate, for the plant, natural gas pipeline modifications to make the connections, the water supply and discharge pipelines, and the electrical transmission lines, including the following:
 - 1. Identify general construction methods, restrictions for setbacks, temporary equipment bridges, dewatering plans, stockpile placement, alignment modifications, grubbing limits, and restoration techniques.
 - 2. Indicate the anticipated pipeline trench depth, and note the minimum cover to protect the proposed pipes.
 - 3. Describe any planned trench protection, if appropriate, such as shoring and bracing.
 - 4. Describe the proposed footings or other foundation structures for the transmission lines, including dimensions, depths of installation, and width of the construction corridor.
 - 5. Describe the proposed locations of fill and disposal materials.
 - 6. Describe planned procedures of removing and replacing topsoil.
 - 7. Describe any special physical site conditions that may cause construction constraints and/or require special construction techniques, if appropriate.
 - 8. Describe proposed mitigation measures with limits on construction activities and installation of temporary erosion control structures.
 - 9. Describe Best Management Practices that BP anticipates would be used during and after construction.
 - 10. Provide typical wetland crossings or foundation locations for transmission line towers (plan view and cross section) and for erosion control structures.
- D. Describe general construction equipment to be used.

Construction Management

- A. Describe the overall applicant management structure for construction.
- B. Describe the QA/QC program and how it will be applied to the project.
- C. List the operations, checks, and reviews by equipment categories. Include environmental equipment and safety and environmental control plans. Describe how construction at the cogeneration plant site will coordinate with ongoing construction projects for the BP refinery.

- D. Clearly identify the positions responsible for compliance with health and safety regulations/requirements.
- E. Describe how and when “stop work” authority (including cultural resource finds) would be used and to whom it is assigned.

Protection from Natural Hazards

- A. Present a summary of the more detailed natural hazard protection information based on Criterion A under Construction Methods.

Appendix E: Air Quality

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all air quality issues. The technical report should have the following major divisions: (1) emissions and BACT analysis, (2) assessment of the affected air quality environment, and (3) PSD permit application.

At a minimum, the following elements should be included in the Air Quality Technical Report.

Emissions and BACT Analysis

- A. Describe the emission characteristics of the equipment to be used.
- B. Describe the required emission limits applicable to the project.
- C. Provide a documented “top-down” BACT analysis for criteria pollutants that includes recent BACT determinations, and economic and environmental justification for the BACT(s) selected for the project.
- D. Provide an assessment of BACT for toxic pollutants, including ammonia, assuming selective catalytic reduction is selected as BACT for NO_x.
- E. Provide estimates of air pollutant reductions that are expected to occur as a result of shutting down existing BP refinery facilities after start-up of the proposed plant.

Greenhouse Gas

- A. Provide estimates of the project’s greenhouse gas emissions (GHG), including carbon dioxide and methane, and the effect on global warming. Compare these contributions and effects to those of other generators of GHG in the state. Describe any planned GHG controls and/or offsets, including those at other BP facilities, which would apply to the BP Cherry Point Cogeneration Project.

Assessment of Air Quality Affected Environment

Climate

- A. Provide a general description of the climate for the project study area. Include maximum and minimum temperatures by season, 25-year and 100-year precipitation events, and wind flow patterns and probabilities by speed and direction (wind rose).

General Air Quality Study

- A. Identify state and federal ambient air quality standards, hazardous/toxic air pollutant standards, PSD increments, PSD thresholds, applicable state and federal emission standards, and applicable permitting requirements relative to the project.
- B. Present meteorological data for the site or for a location that reasonably approximates the site's meteorology. Data should, at a minimum, include all of the parameters specified in WAC 463-42-312 and should follow the guidance presented in the EPA document entitled *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, published February 2000 by the U.S. EPA Office of Air Quality Planning and Standards in Research Triangle Park, NC (EPA-454/R-99-005). Modeling should include receptors in Canada, as appropriate.
- C. Provide a seasonal analysis of frequencies of wind directions and wind speeds from the meteorological station at the refinery.
- D. Describe how the selected control technologies and controlled emission rates of the facility will comply with applicable emission standards.
- E. Summarize key information for the PSD permit application.

Odor

- A. Evaluate the potential for project-related odor impacts at the closest sensitive receptors to the project. The analysis should discuss whether or not the natural gas to be used at the plant will be odorized and whether or not that odor would be detectable at sensitive receptors.

Visibility

- A. Provide an analysis of the project's potential for generating visible plumes, and/or plume-induced fog, mist, or icing. Focus on the potential impacts to visibility on Grandview Road and other nearby roads.

Fugitive Emissions

- A. Provide estimates of fugitive dust (PM₁₀) that would be released during construction and operation. Estimates should be based on the most recently available emission factors for fugitive dust. A comprehensive dust mitigation plan should be developed to minimize construction dust.

PSD Permit Application

- A. Provide an introductory section describing organization of the PSD permit application and a summary of findings.
- B. Provide a section describing applicable emission standards: new source performance standards, Title 4 (Acid Rain) provisions, state and local emission standards, notice of construction and application for approval, and PSD standards.
- C. Provide an in-depth air quality impact assessment that describes:
 - 1. Stack characteristics, building dimensions, and good engineering practices for stack height calculations.
 - 2. Existing ambient air quality meteorology, including meteorological data and background air quality.
 - 3. Dispersion model selection and application, including receptor locations both in the U.S. and Canada.

4. Results of the air modeling, including criteria pollutants, toxic air pollutants, Class I and II increments, and air quality-related values, including regional haze assessment and impacts on vegetation, soils, and aquatic resources.
5. Miscellaneous issues: construction impacts and growth-inducing impacts.

Appendix F: Water

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with water. The technical report should have two primary divisions: natural environment and built environment.

Natural Environment

Surface Water Runoff

- A. Describe existing runoff conditions associated with the proposed power plant site, the water pipeline routes, and the transmission line route.
- B. Identify and describe the state water quality classification, total maximum daily loads, and existing water quality limitations under which Terrell Creek is managed. Identify which standards and other parameters are at risk or not at risk from the proposed power plant, water pipelines, natural gas pipeline connections, and transmission lines.
- C. Define the design storm for erosion control measures.
- D. Provide a quantitative evaluation of the stormwater runoff rate, quantity, and quality during construction and operation of the plant, water pipelines, and transmission lines.
- E. Describe potential pollutants associated with the construction and operation of the proposed plant, natural gas pipeline connections, water pipeline, and transmission lines that could affect surface waters. Describe pollutant types and potential effects and discuss BMPs, spill response, spill containment, and spill prevention measures.
- F. Describe the process whereby BMPs would be incorporated into construction and operation specifications at the plant site, including the erosion control plan/stormwater pollution prevention plan. Also, address these issues for construction and operation of the water supply and discharge pipelines, and transmission lines.
- G. Show how stormwater would be detained and controlled during plant construction and operation, including any detention pond size, treatment system, and conveyance system.
- H. Describe how stormwater runoff would be controlled during construction and operation of the water supply and discharge pipelines.
- I. Describe the methods and process for construction and operation of the transmission lines, including the towers and footings. A detailed description and drawings of the transmission lines and locations of tower footings should be included. Describe how stormwater runoff would be controlled during construction and operation of the transmission line, including towers and footings.
- J. Describe the area required for construction and operation of transmission line towers and footings.

Surface Water Movement/Quality/Quantity

- A. Describe the source and destination (disposal) of water used in hydrostatic testing of the power plant facilities, natural gas pipeline connections, and water supply and

- discharge pipelines. Describe the quantity and quality of waste hydrostatic test water and the potential impact of discharge of the test water.
- B. Provide detailed descriptions and conditions of all surface waters in the vicinity (0.5 mile) of the proposed power plant, water pipelines, natural gas pipeline connections and transmission lines if the project would discharge directly to a water body. As noted in the environmental issues chapter, the project, as currently planned, does not include direct discharge to any water body. Provide a map to clearly display the existing and proposed surface water network. Use the Washington Department of Natural Resources stream type classification to describe all drainages.
 - C. Describe and discuss all surface water crossings associated with any new water supply pipeline and the transmission lines including construction methods, risks, setbacks, potential disturbance to surface waters, and a description of control measures that would be used during construction and operation to minimize runoff. Discuss impacts and mitigation measures for any tower footings that may be placed in or near surface water.
 - D. Document sources used to identify proposed stream crossings, if any, and provide an estimate of unmapped stream crossings, if any, by stream type for each transmission line.
 - E. Identify by month and approximate week the timing window required to avoid in-stream work, if any, during peak or high flows. Maximize the use of low flow conditions, and minimize impacts on anadromous and resident fisheries. This applies to the construction of any new pipelines and the transmission lines.
 - F. Discuss construction- and operation-related impacts on in-stream flow requirements, if any. Address whether there will be a cumulative effect because of the additional demand on in-stream water.
 - G. Describe specific mitigation measures for any impacts on surface water bodies. Provide detailed specifications and/or the design, plans for implementation, and goals of mitigation measures.
 - H. Describe the quantity and quality of stormwater associated with the proposed plant (see Surface Water Runoff Criterion D, above). Describe the potential effects (or lack of effects) of water discharged to any detention ponds or surface waters. Describe how released water would be detained and controlled during plant construction and operation including detention pond size, conveyance system, and treatment system design. Discuss the stormwater pollution prevention plan and its implementation.

Runoff/Absorption

- A. Describe existing runoff conditions associated with the proposed plant site, natural gas pipeline connections, water pipelines, and transmission lines. Include descriptions of drainages and swales that carry runoff water and the ultimate destination of runoff. Discuss existing sediment load conditions of drainages associated with the proposed plant, including the natural gas pipeline connections, water pipeline, and transmission lines.
- B. Discuss potential and cumulative sediment impacts on drainages associated with the proposed plant, natural gas pipeline connections, water pipelines, and transmission lines. Include a description of control measures that would be used during construction and operation to minimize and/or treat runoff.

Floods

- A. Provide maps (1:2,400 or larger scale) of the project area showing the locations of the 5-, 100-, and 500-year floodplains relative to project features.

- B. Document sources used to identify the location of potential floodplains (e.g., FEMA maps).
- C. Discuss potential impacts (if any) associated with flood events during construction and operation of the proposed plant, natural gas pipeline connections, water pipelines, and transmission lines. Discuss potential flooding impacts on construction and operation and potential impacts on floodplain functions due to construction and operation. Address facilities or structures (e.g., tower footings) that would be within floodplains.
- D. If proposed facilities would be located in a floodplain, describe control measures that would be used during construction and operation to address floods.
- E. Identify by month and approximate week the timing window required to avoid potential floods for the construction of the proposed plant, natural gas pipeline connections, water pipelines, or transmission lines.
- F. Describe the potential effects (or lack of effects) of discharged water (wastewater and stormwater) from the proposed plant during any potential floods. Describe the operation of the stormwater system and components (e.g., detention ponds, treatment systems, and conveyance system) during a flood.

Groundwater Movement/Quantity/Quality

- A. Provide geologic logs and hydrogeologic information for nearby wells and any information that is available for other wells in the Cherry Point and plant site areas.
- B. Provide a hydrogeologic cross section of the plant site, showing depths to groundwater, geologic materials, and projected depths to bedrock aquifers.
- C. Provide potentiometric surface maps of the regional aquifers underlying the site, based on published hydrogeologic studies of the region.
- D. Describe the aquifer characteristics, including groundwater flow directions, and recharge and discharge areas, for each aquifer system.
- E. Describe long-term trends for groundwater use, availability, and water quality in the project vicinity.
- F. Discuss the properties of site soils with respect to the permeability of the substrate, and how these materials would transmit any contaminants released at the surface.
- G. Identify potential onsite sources of contamination, and discuss potential impacts on the groundwater system from accidental spills and releases. Also describe the potential for groundwater contamination from the ongoing subsurface disposal of stormwater and as seepage from any detention pond. Describe measures that would be implemented during construction and operation to mitigate any adverse impacts on the site's groundwater.
- H. Evaluate the impact of site construction and operation on recharge to the area's groundwater. Discuss mitigation measures that would be implemented to reduce or eliminate this impact.
- I. Describe how wastewater quality would be evaluated and controlled so as not to adversely affect groundwater quality.

Built Environment

Water Rights

- A. Describe any applicable water rights.

Public Water Supplies

- A. Provide a large-scale map (1:2,400 scale or larger) showing the existing and planned water supply line from Whatcom County PUD No. 1 to the proposed power plant.
- B. Provide a summary description of the project's water supply system and the anticipated project water consumption by volume, rate, and use. Also, describe measures that would be used to recycle water at the plant and volumes of water that would be recycled. (Detailed responses to this WAC rule are addressed in Section 2.0 Description of the Proposed Action, WAC Requirements.)
- C. Describe the water quality of the source.
- D. Describe the water treatment requirements and methods needed to facilitate use in the plant, if appropriate.
- E. Describe the proposed plan for providing dust control water and drinking water to construction workers at the site.
- F. Provide a detailed description of the refinery's water supply from Whatcom County PUD No. 1 and indicate whether or not a change-in-use or change-in-location authorization would be required.
- G. Describe alternatives to purchasing water from Whatcom County PUD No. 1.

Wastewater Treatment

- A. Provide a summary and detailed descriptions of project wastewater streams, treatment facilities, and discharge.

NPDES Application

- A. Submit a complete NPDES stormwater permit application for all construction activities associated with the project. The application should follow the requirements presented in WAC 463-38.
- B. Determine through discussions with the Department of Ecology whether or not an operational NPDES stormwater permit application is necessary. If not, provide a letter from Ecology stating that the permit is not required. If required, submit a permit application following the requirements of WAC 463-38.

Appendix G: Earth

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with earth.

Protection from Natural Hazards

- A. Describe natural hazards that could affect safety and/or operation of the facility, water supply, discharge, natural gas pipeline connections, and transmission lines. Describe design measures that would be implemented to protect the project from natural hazards.
- B. Address erosion as a potential impact of flooding with respect to the plant site, the gas and water pipelines, and the electrical transmission lines. Describe design measures that would be implemented to reduce the impact of erosion.
- C. Describe the tectonic setting and historical seismicity of the Pacific Northwest, with emphasis on the Whatcom County region. Identify any Quaternary and Holocene faults in the region, and address these and other potential seismic sources that could result in seismic shaking at the facility.

- D. Provide a seismotectonic map of the region, showing tectonic elements and historical seismicity. It is anticipated that a 100-mile radius of the site would cover any seismotectonic features relevant to the site, although the area covered should be selected based on the results of this evaluation.
- E. Provide estimated ground accelerations for the project based on available data, and describe the types of seismic hazards that could result from such shaking. Describe the geotechnical investigation that would be performed to develop the final seismic design for the plant facility, natural gas pipeline, water pipeline, and transmission line.
- F. Show the distribution of Uniform Building Code seismic zones on a regional map centered on the project.
- G. Describe storm hazards, including site-specific information on the magnitude of storms and specific measures that would be used to protect the facility against storms.

Geology

- A. Describe the geologic conditions in the plant vicinity, natural gas pipeline connections, water pipelines, and transmission lines. Include a detailed discussion of subsurface conditions at the plant site as they pertain to the engineering design of the plant's foundation.
- B. Provide site-specific information on the surface and subsurface geology at the plant site, along the gas pipeline connections, along the Birch Bay wastewater supply pipeline (if proposed), along the electrical transmission corridors, and at the borrow source. This should include a subsurface profile through the plant site vicinity.

Soils

- A. Describe the pedogenic soil types and assemblages that are developed in the vicinity of the plant site, natural gas pipeline connections, water pipeline, and transmission line. Provide a large-scale map of these soils (from U.S. Soil Conservation Service Soil Survey maps).
- B. Describe the susceptibility to erosion of soils associated with the project, and describe mitigation measures that are proposed to minimize erosion during construction and operation of the plant site, electrical transmission line, gas pipeline connections, and any water pipeline. Include a description of procedures that are proposed to control erosion and sedimentation during construction of the plant and offsite utilities.
- C. Describe the methods that would be used for foundation preparation, filling, and any stream crossings. Also, describe the potential impacts from these activities, and the planned design measures to avoid or minimize impacts (cross reference Appendix F, Water).
- D. Identify and describe potential borrow sources in the area that could be used for the plant site fill and trench backfill materials, including the location of the borrow pits, the types of soils that likely would be used, and the anticipated volume of borrow material. Also, describe any likely impacts (and appropriate design features to mitigate impacts) that might result from extraction of the borrow material required for this project and discharge of discarded materials.
- E. Assess the potential for encountering contaminated soils in excavations for any proposed water supply pipeline. Include a proposed approach for identifying contaminated soils, and for erosion control and disposal of contaminated soils that would be excavated for the pipeline's installation.
- F. Describe the methods that would be implemented for pipeline trench backfill (both the natural gas and water pipelines), including gradation, drainage, compaction, wet-weather work, and use of impermeable fill in wetland areas. Describe the potential

requirements for and sources of imported fill materials, minimum pipeline cover depths, and disposal of excess excavated materials, including estimated volumes, specific sites, and methods to stabilize the piles of excavated materials. This discussion should include plans for moisture-sensitive soils, where applicable; notably these types of soils are likely to be present in the wetland areas at the plant site.

Topography

- A. Briefly describe the geographic setting of the proposed project.
- B. Provide large-scale topographic maps (1:2,400 or larger) of the plant site, natural gas pipeline connection routes, water pipeline connections, and transmission line routes. Enlargements may be necessary to portray areas where topographic or drainage changes would be required.
- C. Describe in detail the topographic modifications that would be required for construction of the plant site, with particular emphasis on modifications to drainage patterns (cross reference Appendix F, Water).
- D. Describe any topographic changes that would result from excavation of borrow materials and any resulting impacts and measures proposed to mitigate impacts.

Unique Physical Features

- A. Discuss any unique physical features (if present) in the vicinity of the plant site, water pipelines, natural gas pipeline connections, and along the transmission line routes. If borrow material would be required for construction, a similar evaluation of potential borrow areas should also be provided.
- B. Describe measures that would be implemented to mitigate or avoid disruption to unique physical features, if present. This should include a discussion of how and where construction activities would be staged in the vicinity of such features.

Erosion

- A. Describe specific design measures that would be implemented to minimize or control erosion during construction and operation of the plant. This discussion should address the impact of reduced soil permeability in construction areas, and the potential for seepage and resulting erosion associated with the plant's wastewater retention/disposal system.
- B. Describe specific design measures that would be implemented to minimize or control erosion during construction of the water pipelines. This discussion should indicate what would be done with excess materials from pipeline trench excavation.

Appendix H: Plants and Animals

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with plants and animals. Since this information would be used by a number of different reviewers and since the information is interrelated, a single technical report will facilitate environmental review. The technical report should have several primary divisions including: Habitat, Wetlands Delineation, Wildlife, Biological Assessment, and Agricultural Crops and Animals.

Habitat

- A. Provide a detailed description of habitats present on the project site, transmission line corridors, gas pipeline connection routes, and water pipeline corridors. Habitat descriptions should include identification of plant species present, relative cover, and in the case of forested systems, a general description of tree species. Health and vigor of the plant communities should be discussed.
- B. Characterize habitat based on both literature reviews and quantitative field analyses taking into account the species affected and the surface disturbance planned.
- C. Obtain Priority Habitat and Species data for the project area from the WDFW and WDNR Natural Heritage Program, and include the results.
- D. Present both the total construction and operational impact areas for project-related facilities by vegetation community. Describe the vegetation by cover type and quantify the impacts of removal or trimming, including whether the impacts on the plant communities are permanent or temporary and whether the right-of-way associated with the water pipeline or transmission line would require the permanent removal of existing trees and shrubs for easement maintenance. If trees would be removed, describe the total area impacted by the tree removal.
- E. If woody vegetation along the water pipeline or transmission line corridor would be removed, address potential changes in the adjacent plant community type and the potential impact of introduced exotic or noxious weeds.
- F. Provide measures that would be used to prevent or minimize the introduction, spread, and establishment of noxious weeds during construction and operation.
- G. Provide revegetation guidelines for areas that would be disturbed during construction and include guidelines for the use of native and non-native seed mixes.

Wetlands Delineation

- A. Conduct appropriate delineations by a professional wetland biologist to identify wetlands in the vicinity of the plant site, water pipelines, and the transmission lines using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the 1997 Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology 1997).
- B. If wetlands are identified and delineated, prepare a Wetland and Stream Delineation Report that includes the following:
 - 1. Classify wetland habitat types based on the USFWS wetland classification system (Cowardin et al. 1979).
 - 2. Rate wetlands and streams and determine their buffer widths through guidelines in the appropriate local sensitive areas ordinance and Ecology's rating for western Washington.
 - 3. Prepare a functions and values assessment for each individual wetland. Evaluation methods should follow those outlined in Wetland and Buffer Functions Semi-Quantitative Performance Assessment Methodology (Cooke 1997) or other method acceptable to Ecology.
 - 4. Present compliance with local, state, and federal regulations. Activities within wetlands and their associated buffers may trigger certain permits:
 - a. Clean Water Act, Section 404 Discharge of Dredge and Fill Material Permit – U.S. Army Corps of Engineers.
 - b. Clean Water Act, Section 401 Water Quality Certification – EFSEC
 - c. Federal Endangered Species Act Section 7 consultation – USFWS, NMFS.
 - d. Application for General Discharge of Stormwater Associated with Construction Activity - EFSEC.

- e. Show on a map the locations of wetlands within the proposed plant site, and along any new water pipeline and transmission line routes including those immediately adjacent to the right-of-way.
- f. Provide drawings showing pipeline or transmission line installation in areas immediately adjacent to wetlands and indicate if there would be temporary impacts on wetland buffers during construction.
- g. Identify construction and operational impacts on wetlands by habitat type.
- h. Describe wetland impact avoidance and minimization measures.
- i. Submit construction method drawings for any wetland crossings and describe construction method impacts, equipment to be used, and location of stockpiled soils.
- j. Indicate how any proposed water pipelines, natural gas connections, and transmission line routes minimize impacts on wetlands.
- k. Specify the setback of all earth-moving activities from wetlands, areas of native habitat, and riparian zones.
- l. Identify buffer widths based on applicable Whatcom County or Ecology requirements, and present acreage of affected wetland buffers (describe and quantify).
- m. Describe maintenance activities, including methods to maintain corridors for inspection.
- n. Describe proposed wetland creation, enhancement, or restoration measures and justify species selections.
- o. Describe any wetland mitigation for loss of functions and values (including wildlife habitat).

Wildlife

- A. Have a professional biologist conduct an onsite field characterization of existing wildlife resources and potential wildlife use of the project area.
- B. Request a species list for the project area from the USFWS and NMFS, and include results.
- C. Contact professional biologists familiar with the local area for information on wildlife species that use the project area.
- D. Provide an assessment of potential impacts, proposed mitigation measures, and a wildlife protection plan, if appropriate, to mitigate project-related impacts on wildlife.
- E. Assess the potential for wildlife enhancement through the use of stormwater discharges.
- F. Review Priority Habitat and Species data for migration routes and report the findings, including a statement regarding potential impacts.
- G. Assess the risk of bats and birds colliding with project structures (stacks or towers) during both day and night, as well as the risk of collision during periods of fog.
- H. Identify potential migrating fish and migration routes associated with any proposed water supply or natural gas pipelines and transmission lines. Describe current migration conditions, issues, and barriers (dams, diversions, water pumps, etc). Document sources of information.
- I. Describe potential effects that the proposed plant, water pipelines, natural gas pipelines connections, and the transmission lines may have on fish migration. Discuss any discharges, noises, or activities that may confuse, deter, or disrupt migrating fish (cross reference Appendix F, Water).
- J. Identify the timing window required to avoid potential impacts on migration routes or migrating fish. If construction could disrupt migration, activities should not be

conducted near or within surface waters when migrating fish are present. This applies to the construction of the proposed plant, water pipelines, natural gas pipeline connections and the transmission lines. In lieu of a timing window, describe construction methods, mitigation measures, and BMPs that would be implemented to minimize these potential impacts.

- K. Specify setbacks for all construction-related activities (earth moving, refueling, stockpiling, etc.) to protect migrating fish, if appropriate.
- L. Describe any impacts on fish migration due to river crossings associated with the transmission line or pipelines, including construction methods, risks, setbacks, BMPs, and timing.
- M. Discuss potential impacts that the placement of transmission tower footings in or near surface water may have on migration routes and migrating fish. Describe proposed measures to minimize potential impacts. Include construction timing and BMPs and refer to the applicable protection measures in the stormwater pollution prevention plan, as appropriate.

Biological Assessment

The following federal requirements could apply to the proposed cogeneration plant, and as such, the Council recommends that these issues for unique species, endangered species, migratory birds, and the bald eagle be considered in the preparation of the ASC.

Unique Species

- A. Determine the need for a Biological Assessment to meet the requirements of the Corps, USFWS, and NMFS. If a Section 404 permit from the Corps or other federal permits are required, Endangered Species Act compliance would be necessary.
- B. Determine the need for rare and sensitive plant surveys based on a review of USFWS, WDNR Natural Heritage Program, and Priority Habitat and Species Program database listings for sensitive plant species. Consider describing the presence of any state-listed, candidate, or proposed species, and impacts on these species if present.
- C. Consider conducting a survey for noxious weed species within the project area. Consider verifying with Whatcom County's noxious weed control authority whether or not noxious weeds are known to be present within the project area.

Endangered Species Act

- A. Consider the need to prepare a Habitat Conservation Plan (HCP) if listed species would be affected by project-related facilities. The HCP should include elements to minimize or mitigate impacts of an incidental take to the maximum extent possible so that any incidental take would not appreciably reduce the likelihood of the survival and recovery of the species in the wild. The HCP also should show that adequate funding for plan implementation is provided. Consultation requirements under Section 7 of the ESA also should be satisfied.
- B. If there would be a taking of a listed species, consider the need to obtain an incidental take permit.

Migratory Bird Treaty Act

- A. Consider determining if the locations of project-related facilities would provide habitat for migratory birds. If so, consider identifying potential impacts on those species.

Bald Eagle Protection Act

- A. Consider determining if the project area could provide habitat for bald eagles and/or golden eagles.

Agricultural Crops and Animals

In addition to the natural environment concerns about plants and animals, there could be issues involving agricultural lands and livestock associated with any offsite portions of the proposed project. Therefore, the following applies to the last division of the technical report.

- A. Provide a complete description of the existing conditions and impacts on agricultural crops and livestock from project construction and normal operation, including the impact of emissions on agricultural land. In particular, show irrigation systems if present. Describe any prime and unique farmlands, if any.
- B. Identify and describe agricultural activities in areas within and adjacent to the project site (e.g., hybrid poplar cultivation), the proposed water supply pipeline routes, and the proposed transmission line corridors. If croplands are present, indicate the percentage of crop cover. Describe annual crop cycle and the types and value of crops directly affected. Indicate whether land is left fallow or harvested annually.
- C. Describe construction and/or operation activities that could affect cropland, and indicate whether impacts are permanent or temporary. Quantify total areas of impact, and discuss whether there would be reduced crop productivity over time, including crops within pipeline corridors.
- D. Discuss how an ammonia spill might affect agricultural crops or livestock.
- E. Discuss whether or not stack or drift emissions would affect germination or production of crops on adjacent farmlands.

Appendix I: Transportation

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with transportation.

Transportation Systems***Expected Traffic Volumes during Construction***

- A. Identify the time periods, vehicle types and magnitude, and travel routes that would be used by each type of vehicle during construction. Identify construction materials and equipment that would need to be delivered to the site for use during construction, their source and final destinations, and storage locations. Also, estimate the number of construction workers that would be needed, where they would likely reside, and their anticipated times of arrivals and departures.
- B. Collect available existing traffic volumes on all roadways that would be used to access the site.
 - 1. Identify the average daily traffic volume for each identified road that would be used during construction of the facility, including the percentage of trucks within the daily traffic volume.
 - 2. Identify the estimated ADT volume during seasonal peaks (e.g., summer recreation or other construction activity at the BP refinery) for each of the

- identified roads that would be used during construction of the facility. Include the season or period this peak traffic occurs and the percentage of trucks within the daily traffic volume.
3. Identify the estimated peak-hour volume for each of these identified roads during construction of the facility, whether the peak is weekday or weekend, and the time of day it occurs, both during normal periods and during seasonal peak periods.
 4. Estimate the level-of-service (LOS) for each of the identified intersections that would be used by construction traffic during construction of the facility.
 5. Determine any transportation-related impacts associated with activities and facilities identified above, the mitigation measures that are included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

Access Routes for Moving Heavy Loads, Construction Materials, or Equipment

- A. Identify routes and travel modes that would be used for moving heavy loads, construction materials, or equipment for construction or operation of the facility. Include the location of access points or termini and transfer points (where loads would be transferred from one mode of transportation to another), if known.
- B. Identify the likely transportation-related impacts associated with heavy loads.

Expected Traffic Volumes during Normal Operation of the Facility

- A. Identify the types of vehicles, the number of vehicles of each type, and the routes that vehicles would use during normal operation of the facility. State whether these vehicle volumes would be peak hour or daily volumes, and identify the peak hours. For the delivery of materials and equipment, identify the location of the source, storage sites, final destinations, and estimate the number of trucks per day. Include the volume and frequency of anhydrous ammonia shipments. During operation, identify where workers are anticipated to reside along with their anticipated arrival and departure times.
- B. Identify the estimated ADT volume for each of these identified roads during operation of the facility, along with the percentage of trucks.
- C. Identify the estimated ADT volume during seasonal peaks for each of these identified roads during operation of the facility, including the period this peak traffic occurs, the directional split, and the percentage of trucks.
- D. Identify the estimated peak-hour volume for each of these identified roads during operation of the facility, whether the peak is weekday or weekend, and the time of day it occurs, both during normal periods and during seasonal peak periods.
- E. State the estimated LOS for each of the identified intersections that would be used during operation of the facility.
- F. Determine any transportation-related impacts associated with activities and facilities identified above, the mitigation measures that are proposed in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

For Transmission Facilities, Anticipated Maintenance Access, and Consistency with Local Comprehensive Transportation Plans

- A. Identify the location and expected frequency of use of maintenance roads for the natural gas pipeline connections, any new water pipeline, and the transmission lines.

Vehicular Traffic

- A. Identify all the public and private transportation modes and facilities that would be used during construction or operation of this facility, including state, county, and local roads, railroads, ports, harbors, and airports in the immediate vicinity of the proposed facility.
- B. Identify all existing roads that would be used for construction or operation of the facility, and identify the load-bearing capacity for those roads that would experience considerable traffic or heavy vehicles.
- C. Identify the existing ADT volume for each of these identified roads, including the percentage of trucks.
- D. Identify the existing ADT volume during seasonal peaks (e.g., truck transports to/from grain elevators around harvest time) for each of these identified roads, including the period this peak traffic occurs, the directional split, and percentage of trucks.
- E. Identify the existing peak-hour volume for each road identified above, whether the peak is weekday or weekend, and the time of day it occurs, both during normal periods and during seasonal peak periods.
- F. Identify all intersections with other roads where additional traffic is anticipated during construction or operation of the facility. Include the existing LOS associated with each of these identified intersections.
- G. Identify any improvements to existing roads, intersections, or roadway approaches that would be used for construction or operation of the facility, and identify the standards that would be used for design and construction of these improvements. Identify the responsible agency that will maintain these roads.
- H. Identify any new roads, intersections, or roadway approaches that would be used for construction or operation of the facility, and identify the standards that would be used for the design and construction of these improvements. Identify the responsible agency that will maintain these roads.
- I. Identify any transportation-related impacts associated with project activities and facilities, the mitigation measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

Waterborne, Rail, and Air Traffic

- A. Identify and describe the existing Burlington Northern Santa Fe Railroad rail line nearby to the east of the BP refinery and other transportation facilities (waterways, ports, airports, etc.) that would be used during construction or operation of the facility.
- B. Identify at what point the transportation facilities would be accessed and whether this is an existing or new access (e.g., unloading facility, existing railroad siding).
- C. Describe all existing access points for the current facilities and operations and what changes would be needed (if any) during construction and operation of the facility. Indicate what the impact of construction and operation would be. In particular, describe the methods and modes to be used to transport heavy components such as turbines.
- D. Describe what improvements would be needed for new access points during construction and operation of the facility.
- E. Identify the nearest airport, along with the associated air traffic and usage as they relate to this project, if any.
- F. Identify any transportation-related impacts associated with project activities and facilities, the mitigation measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

Parking

- A. Identify the anticipated parking requirements and locations for the construction workforce, along with provisions for controlling and maintaining the quality and quantity of stormwater runoff.
- B. Identify the anticipated parking requirements and locations for the operations workforce.
- C. Identify any transportation-related impacts associated with project activities and facilities, the mitigation measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

Movement/Circulation of People or Goods

- A. Provide an estimate of the number of workers and support staff required for the construction and operation of the facility. This estimate should be shown by significant work element. Include time frames (work schedules and overall duration) associated with each element identified.
- B. Provide an estimate of trips generated during construction or operation of the facility. Include backup discussions explaining the assumptions used in developing this estimate.
- C. Identify staging and stockpiling areas and the measures that would be used to restore and rehabilitate disturbed areas.
- D. Identify specific routes to be used during construction and operation of the facilities, including where fuel supplies will be obtained.
- E. Describe the means proposed to ensure safe use of those areas under BP's control where public access will be granted during project construction, operation, abandonment, termination, or when operations cease.
- F. Identify the transportation-related impacts associated with project activities and facilities, the mitigation measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

Traffic Safety

- A. Provide the most recent three-year accident history, including accident rates and types, for the road system that would be affected by construction or operation of the proposed facility.
- B. Discuss potential accidents that may result during construction and operation of the proposed facility, particularly at access points and intersections.
- C. Identify areas where adverse impacts on the safety of the road system may occur and how that impact would be mitigated. Include all roadway/railroad at-grade crossings.
- D. Identify fuels and waste products that would be transported to and from the facility, including specific routes to be used.

Appendix J: Emergency and Security Plans

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with accidents, emergencies, and security. The technical report should have three primary divisions: emergency plans, a spillage prevention and control plan, and security. These should be integrated with emergency plans for the refinery.

Emergency Plans

- A. Summarize the BP Cherry Point Refinery Emergency Response Plans and attach one copy to the ASC cover letter.
- B. Describe emergency plan changes for construction, operation, and maintenance, assuming that emergency plans for the proposed cogeneration plant would be made as amendments to the refinery's overall emergency plan.
- C. Specific events that should be addressed by the plans relative to the cogeneration plant include the following:
 - 1. Construction
 - 2. Project evacuation
 - 3. Fire and explosion
 - 4. Natural gas release on the cogeneration site or associated with the natural gas pipeline connections
 - 5. Chemical spill or release
 - 6. Oil spill or release
 - 7. Abnormal weather (fog and icing)
 - 8. Earthquake
 - 9. Volcanic eruption
 - 10. Medical emergency
 - 11. Facility blackout
 - 12. Facility bomb threat
 - 13. Ammonia release onsite
 - 14. Ammonia release offsite
- D. Indicate immediate actions, secondary actions, notifications, evacuation, emergency signals, and responsibilities, as appropriate.

A Spillage Prevention and Control Plan

- A. Describe the proposed Spill Prevention and Control Plan (for amendment to the refinery's plan as appropriate) that addresses, at a minimum, the measures listed in WAC 463-42-205, WAC 463-42-525, and CFR 112 for construction, operation, and maintenance activities associated with the:
 - 1. Generation plant
 - 2. Water supply pipelines
 - 3. Transmission lines and substation
 - 4. Access roads
 - 5. Connections to the natural gas pipelines
 - 6. Wastewater facilities and discharge pipelinesThis plan should be certified by a Washington-licensed Professional Engineer and completed and submitted on a date satisfactory to EFSEC.
- B. Provide information regarding spill containment design, volume calculations, and criteria used in developing the design.

Security Plans

- A. Describe the features of the cogeneration project (construction and operation) designed to provide security, including lighting, fencing, alarms, security personnel and patrols, cameras, and other planned features. Explain if some of these features or services will be a part of the refinery's plan.
- B. Provide emergency response plans for security-related events and submit on a date satisfactory to EFSEC.

- C. Describe how BP will coordinate with local law enforcement if assistance is required. Provide letters of agreement, if support agreements are established.

Appendix K: Noise

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with noise. The following elements should be included in the technical report.

- A. Provide background information describing the nature of noise, its measurement, and quantification. This section should include a thorough discussion of these topics:
1. The logarithmic aspect of the decibel measurement scale. A table should be included to relate familiar sounds with typical decibel measurements.
 2. An explanation of A-weighting and C-weighting.
 3. How changes in sound levels are perceived by people with average hearing.
 4. Sound-level descriptors L_{eq} , L_{max} , and L_{dn} and their application.
 5. Attenuation factors: distance, natural and man-made obstructions, and meteorological effects.
- B. Explain the regulations and define impacts. This section should explain the requirements that determine the methods used to measure existing noise, predict future noise levels, and determine the probability of environmental noise impacts created by this project.
1. Identify and describe relevant federal, state, and local noise standards applicable to industrial, construction, and traffic noise.
 2. Identify which standards will be applied to the project in assessing noise impacts. In the absence of local standards, standards specified in WAC 173-60 should be used.
 3. Address the potential impacts of monotonic, harmonic, and low-frequency noise. This section should distinguish between noise impact thresholds under adopted regulation and other noise below regulatory thresholds that may be perceived by the general public as an impact to quality of life.
- C. Describe existing conditions.
1. Land use - Identify the location of noise-sensitive land uses within the project area by conducting onsite surveys, and indicate the distance of the noise-sensitive land use from the generation plant site or other noise-generation source. The project area should be considered to be the area with noise-sensitive land uses that may potentially be affected by noise from the power plant and associated facilities. Associated facilities include but are not limited to transmission lines, sewage treatment systems, and natural gas supply pipelines. Noise-sensitive land uses should be considered areas where human beings reside and sleep or areas of frequent human use where the introduction of a new source of noise could adversely affect the beneficial use of the land, in accordance with the applicable regulations described in Criterion B above. The following types of property are considered noise-sensitive land uses: residential; multiple family living accommodations; recreational and entertainment (e.g., camps, parks, and resorts); and community service (e.g., churches, libraries, schools, and in-patient hospitals).
 2. Noise attenuation factors.
 - a. Topography and other existing barriers. Identify the elevation of the project site relative to the elevation of noise-sensitive land uses within the project area. Describe intervening topography and major structures that block the line of sight between the project site and noise-sensitive land uses.

- b. Meteorological effects. Describe seasonal temperature and humidity factors that could contribute to deviation from the predicted noise levels in the project area.
 - 3. Noise sources.
 - a. Identify and describe significant sources of noise within the project area. These sources may include but are not limited to highways, factories, aircraft, watercraft, and trains.
 - b. An existing conditions traffic study should be obtained, and a noise model should be created using the FHWA Traffic Noise Model v.1.1 (or later). The effect of existing traffic noise on the environment should be compared with the effect of industrial noise from the existing project site.
 - c. Characterize and quantify with sound level measurements the existing background noise environment at noise-sensitive land uses within the project area.
 - d. Sound meters should be Type 1 as defined by American National Standard (ANSI) S1.4-1983 (Revision S1.4-1973) and ANSI S1.4N-1985.
 - e. Traffic noise should be measured in accordance with the FHWA *Highway Traffic Noise Analysis and Abatement Policy and Guidance*.
 - f. Group noise-sensitive land uses into affected communities, which are defined by the WSDOT *Traffic Noise Analysis and Abatement Policy and Procedures*.
 - g. Measurements should be taken at one or more receiver locations in each acoustically equivalent noise-sensitive area within the project area.
 - h. Because power plants can run 24 hours a day, it is important to characterize background sound levels throughout the day and night. Ideally, one-hour interval sound level data should be collected for a single 24-hour period at each measurement position. Hourly L_{eq} , L_{min} , L_{max} , L_{10} , L_{50} , and L_{90} A-weighted values should be logged. Measurements should not be taken during inclement weather conditions (i.e., rain or high winds). If measurements cannot be taken over this extended period of time, a reasonable number of short-term samples collected throughout the day and night should be taken to adequately characterize the noise environment. Sound recordings should be taken during the entire measurement period to characterize noise sources, especially in the case of noise “spikes,” which could be caused by noise sources unrelated to the project site (e.g., thunder and environmental survey teams).
 - i. If existing significant sources of noise are known to affect a noise-sensitive land use under consideration, short-term measurements characterizing each significant source should be taken.
 - j. Generally, describe sources of noise, temperature, and humidity at each measurement location.
- D. Describe the procedures used to measure existing noise sources and predict future impacts.
 - 1. Describe in detail the assumptions, source levels, procedures, and methods used to predict noise levels.
 - 2. Community concerns regarding low-frequency and “resonance” noise should be evaluated qualitatively. It should be reiterated, from the regulatory segment, that no existing regulation considers this type of noise to be an impact.

- E. Conduct a detailed assessment of noise impacts associated with construction and operation of the plant and any associated facilities. Graph existing operational noise sources and compare them with predicted future noise levels.
1. Construction.
 - a. Identify and describe construction equipment, including sound generation characteristics, and the methods to be used in constructing the power plant and associated facilities.
 - b. This segment should reiterate, from the regulatory segment, that construction noise is exempt from state and county noise limitations except during the hours from 10:00 p.m. to 7:00 a.m. on weekdays, and from 10:00 p.m. to 9:00 a.m. on weekends. The construction industry's best practices for noise control should be presented and explained.
 2. Operation and Maintenance.
 - a. Identify and describe noise-generating elements of the power plant and associated facilities, using engineering data provided by the manufacturers of the equipment.
 - b. Determine predicted noise levels from construction and operation of the power plant and associated facilities at noise-sensitive land uses within the project area using professionally accepted acoustical modeling methods such as those described in *Handbook of Acoustical Measurements* by Cyril M. Harris or *Noise and Vibration Control* by Leo Beranek.
 - c. Identify locations where predicted noise levels exceed noise standards or where the project would result in a substantial increase in noise at noise-sensitive land uses. "Substantial increase" should be defined by the relevant regulation and described in Criterion B above.
 3. Traffic noise - A project design year traffic study should be obtained, and a noise model should be created using the FHWA Traffic Noise Model v.1.1 (or later). The prediction should be compared with the existing conditions model, and the component of traffic noise caused by the project should be identified. The effect of predicted traffic noise on the environment should be compared with the effect of industrial noise from the proposed project.

Appendix L: Population, Housing, and Economics

To avoid redundancy and facilitate the location of specific information, EFSEC recommends that a technical report be prepared to address all issues associated with population, housing, and economics. Criteria that should be addressed regarding the requirements of WAC 463-42-362(2) and WAC 463-42-535 are included in this section. The technical report should examine the following issues:

Study Area Definition

- A. Define the study area to be analyzed in the socioeconomic analysis, including the counties (e.g., Whatcom and Skagit) and primary incorporated cities (e.g., Bellingham, Ferndale, Lynden, Blaine, Sumas, Burlington, Mount Vernon, Sedro-Woolley, and Anacortes). The study area should include the area that might be affected by employment within a one-hour commute distance of the project site.

Population

- A. Provide 1990 and 2000 populations for the counties (e.g., Whatcom and Skagit) and incorporated cities (e.g., Bellingham, Ferndale, Lynden, Blaine, Sumas, Burlington, Mount Vernon, Sedro-Woolley, and Anacortes) in the study area. Provide the growth rates for 1990-2000 for each city and compare these figures to the entire study area and the state of Washington.
- B. Provide published forecast population figures for the study area for both the construction period and the operation and maintenance period. For the construction period, use the year closest to when peak employment would occur. For operation, use the year closest to when the plant is fully operational.

Employment

- A. Identify the major industries and key employers in the study area and the size of the labor force for each of those employers. If appropriate, indicate whether these major industries or employers are experiencing any major increases or decreases in employment because of changing economic conditions.
- B. Provide the average annual workforce size, total number of employed workers, and the number and percentage of unemployed workers in the study area for 1990, 2000, and the year that data are most recently available. Employment numbers and percentage of the total workforce should be provided for the following employment sectors, as available:
 - 1. agriculture, forestry, fisheries
 - 2. mining
 - 3. construction
 - 4. manufacturing
 - 5. transportation, communications, and public utilities
 - 6. wholesale trade
 - 7. retail trade
 - 8. finance, insurance, and real estate
 - 9. professional services
 - 10. government and public administration (including education facilities)
- C. Estimate the average annual size of the construction workforce for each project element, and if possible by trade, for the entire construction period. Indicate number and period of peak workforces. In addition, provide an estimate of the size of the indirect workforce, if any, that would result from construction of the project.
- D. Estimate the average annual size of the project operation and maintenance workforce. If possible, provide a breakdown of the number of workers by trade. If the size of the workforce could vary during the year, provide the anticipated number of workers by month. Indicate peak and average workforces. In addition, provide an estimate of the size of the indirect workforce that would result from operation and maintenance of the project.
- E. Analyze whether or not the locally available workforce would be sufficient to meet the anticipated demand for direct workers, based on estimated unemployment figures in the study area and the projected demand for construction and operation workers (numbers and trades/skills). In addition, analyze whether or not the locally available workforce would likely be sufficient to meet the anticipated demand for indirect workers.
- F. Include a list of the required trades for the proposed project construction.
- G. Indicate how many direct and indirect construction-related workers likely would temporarily relocate and how many would likely commute on a daily basis.

- H. Indicate how many direct and indirect operation and maintenance workers would temporarily relocate (if applicable) and how many would potentially commute on a daily basis.
- I. Estimate the number of construction and operation workers that would likely be hired from outside of the study area if the locally available workforce would not meet the demand for construction and operation workers. Based on skills required, identify where the workforce would likely originate, including the state of Washington, the Pacific Northwest, or elsewhere.
- J. Estimate how many family members or dependents might accompany construction and operation workers who would likely relocate to the area. This number represents the size of the population that potentially would move to the study area as a result of the proposed project. Compare the size of this workforce population for both construction and operation/maintenance with the forecasted population of the study area.

Housing

- A. Provide housing data for 1990 and 2000, as available. Information for each year should include the total number of housing units in the study area, number of units occupied, number and percentage of units vacant, median home value, and median gross rent. Describe available hotels, motels, bed and breakfasts, and campgrounds.
- B. Describe how and where the direct construction and indirect workforce would likely be housed. Describe the potential temporary impacts on area hotels, motels, bed and breakfasts, and campgrounds.
- C. Indicate whether or not meeting the direct construction and indirect workforce's housing needs might constrain the housing market for existing residents and whether or not increased demand could lead to increased median housing values or median gross rents and/or new housing construction. Describe mitigation plans, if needed, to meet shortfalls in housing needs for these direct and indirect workforces.
- D. Describe how and where the direct operation and maintenance workers and indirect workforce would likely be housed. Describe the potential impacts on area hotels, motels, bed and breakfasts, and campgrounds (if any).
- E. Indicate whether or not meeting these housing needs might constrain the housing market for existing residents and whether or not increased demand would likely lead to increased median housing values or median gross rents and/or new housing construction. Describe mitigation measures that would meet potential shortfalls in housing needs for these direct and indirect workforces.

Economics

- A. Describe the approximate average hourly wage that would likely be paid to construction workers. Describe how these wage levels vary from existing average wage levels in the study area. Estimate the expendable income that direct workers would likely spend within the study area.
- B. Describe the estimated amount of project construction-related purchases that would likely be spent within Whatcom County, the study area, and the state.
- C. Describe how much and what types of taxes would be paid during construction, and what jurisdictions would receive those tax revenues. Describe how these taxes would be paid through the construction period of the project.
- D. Describe the approximate average hourly wage that would be paid to operation and maintenance workers. Describe if these wage levels would vary from average wage levels in the study area. Estimate the expendable income that direct workers would likely spend within the study area on an average annual basis.

- E. Describe the project's average annual estimated amount of operation- and maintenance-related purchases that would likely be spent within Whatcom County, the study area, and the state.
- F. Describe how much and what types of taxes would be paid during operation and maintenance of the project and which jurisdictions would receive those tax revenues. Describe how these taxes would be paid annually through operation of the project.
- G. Describe other overall economic benefits (including mitigation measures) and costs of the project on the economies of Whatcom County, the study area, and the state, as appropriate, during both the construction and operation/maintenance periods.
- H. Compare local government revenues generated by the project (e.g., property tax, sales tax, business and occupation tax, payroll taxes) with their additional service expenditures resulting from the project (e.g., police, fire, health, public services, and utilities).
- I. Discuss any potential gaps in expenditures and revenues during both construction and operation of the project. This discussion should also address any potential temporal gaps in revenues and expenditures.
- J. Describe other overall benefits and costs of operation of the project on the economies of Whatcom County, the study area, the state, and other areas.

Environmental Justice (Federal Requirement)

In addition, the following items would need to be evaluated to meet NEPA requirements, and should be included in this technical report:

- A. Provide the numbers and percentages describing the race/ethnic composition of the cities and counties in the study area for 1990 and 2000 if available from the U.S. Census. Racial composition should be provided for Caucasians; Blacks; American Indians/Eskimos/Aleuts; Asian/Pacific Islanders; and others. In addition, the number and percentage of the population that is of Hispanic origin should be provided.
- B. Provide average per capita and household income for 1990 and the year those data are most recently available for each jurisdiction in the study area as published by the U.S. Census or state of Washington sources. Provide the number and percentage of the population below the poverty level for the cities and counties within the study area.
- C. Describe whether or not any minority or low-income populations would be displaced by the project.
- D. Describe whether or not minority or low-income populations would be affected disproportionately, compared to Caucasians or non-low-income populations. Potential effects could include: employment, income, exposure to air or water pollution, exposure to health risks, subsistence use, or visual.
- E. Describe measures designed into the project, if any, that would reduce potential impacts on minority and low-income populations.

Appendix M: Initial Site Restoration Plan

- A. Prepare an initial plan for site restoration in accordance with WAC 463-42-655 after decommissioning of the plant.

Appendix N: Study Schedules

- A. Describe all present or projected schedules for additional environmental studies. These descriptions of the studies should outline their scope and indicate projected completion dates.

Appendix O: Proposed Mitigation Measures

- A. Provide a list of mitigation measures considered in addition to environmental protection measures included in the project design and indicate the following:
1. What the effect of the mitigation measure is expected to be.
 2. Whether or not the mitigation measure will be incorporated into the project.
 3. If the mitigation measure will not be incorporated into the project, indicate why not.